

E5161.01.3.4.8

ESTES LANDFILL RI/FS REMEDIAL INVESTIGATION REPORT


Volume II of V
Appendix K



Prepared for
Arizona Department of Environmental Quality



By

 **Environmental Science &
Engineering, Inc.**
A MACTEC COMPANY

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 Estes Landfill
 Report Number: PIE00103

Sampled: May 3-4, 1999
 Received: May 4, 1999
 Extracted: May 5-11, 1999
 Analyzed: May 5-20, 1999
 Reported: May 21, 1999

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PIE00103	QST-B2-(GW/73) (5/4/99)	Water	8260B, 8270, 200.7, 245.1, 8081A, 8082, 8141A & 8151
PIE00104	QST-B3-(GW/78) (5/4/99)	Water	8260B, 8270, 200.7, 245.1, 8081A, 8082, 8141A & 8151
PIE00105	QST-B2-(S/8) (5/3/99)	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00106	QST-B2-(S/65) (5/4/99)	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00107	QST-B3-(S/75) (5/4/99)	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00108	QST-B3-(S/45) (5/3/99)	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00109	Trip Blank B2	Water	8260B
PIE00110	Trip Blank B3	Water	8260B

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All analyses met method criteria.

OBSERVATIONS: No significant observations were made.

SUBCONTRACTED: The 8141A & 8151 analysis was performed at APPL, Inc. Results are attached.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 Estes Landfill

Sample Descript: Water, QST-B2-(GW/73)-(5/4/99)
 Lab Number: PIE00103

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 21, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)		µg/L (ppb)
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	64%
Decachlorobiphenyl (30-130).....	33%

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00103.QST <2 of 44>

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 Estes Landfill
 Sample Descript: Water, QST-B3-(GW/78)-(5/4/99)
 Lab Number: PIE00104

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 21, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit		Sample Result
	µg/L	(ppb)	
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	61%
Decachlorobiphenyl (30-130).....	54%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 Estes Landfill
 Sample Descript: Soil, QST-B2-(S/8)-(5/3/99)
 Lab Number: PIE00105

Sampled: May 3, 1999
 Received: May 4, 1999
 Extracted: May 11, 1999
 Analyzed: May 13, 1999
 Reported: May 21, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		
Aldrin.....	100	.....	N.D.
alpha-BHC.....	100	.....	N.D.
beta-BHC.....	100	.....	N.D.
delta-BHC.....	200	.....	N.D.
gamma-BHC (Lindane).....	100	.....	N.D.
Chlordane.....	2,000	.....	N.D.
4,4'-DDD.....	100	.....	N.D.
4,4'-DDE.....	100	.....	N.D.
4,4'-DDT.....	100	.....	N.D.
Dieldrin.....	100	.....	N.D.
Endosulfan I.....	100	.....	N.D.
Endosulfan II.....	100	.....	N.D.
Endosulfan sulfate.....	400	.....	N.D.
Endrin.....	100	.....	N.D.
Endrin aldehyde.....	100	.....	N.D.
Heptachlor.....	100	.....	N.D.
Heptachlor epoxide.....	100	.....	N.D.
Methoxychlor.....	100	.....	N.D.
Toxaphene.....	4,000	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 20.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	Diluted out
Decachlorobiphenyl (30-130).....	Diluted out

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 Estes Landfill
 Sample Descript: Soil, QST-B2-(S/65)-(5/4/99)
 Lab Number: PIE00106

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 21, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)		$\mu\text{g/Kg}$ (ppb)
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	78%
Decachlorobiphenyl (30-130).....	95%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 Estes Landfill

Sample Descript: Soil, QST-B3-(S/75)-(5/4/99)
 Lab Number: PIE00107

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 11, 1999
 Analyzed: May 13, 1999
 Reported: May 21, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)		$\mu\text{g/Kg}$ (ppb)
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	80%
Decachlorobiphenyl (30-130).....	82%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00103.QST <6 of 44>



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 Estes Landfill
 Sample Descript: Soil, QST-B3-(S/45)-(5/3/99)
 Lab Number: PIE00108

Sampled: May 3, 1999
 Received: May 4, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 21, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit	Sample Result
	$\mu\text{g/Kg}$ (ppb)	
Aldrin.....	5.0	N.D.
alpha-BHC.....	5.0	N.D.
beta-BHC.....	5.0	N.D.
delta-BHC.....	10	N.D.
gamma-BHC (Lindane).....	5.0	N.D.
Chlordane.....	100	N.D.
4,4'-DDD.....	5.0	N.D.
4,4'-DDE.....	5.0	N.D.
4,4'-DDT.....	5.0	N.D.
Dieldrin.....	5.0	N.D.
Endosulfan I.....	5.0	N.D.
Endosulfan II.....	5.0	N.D.
Endosulfan sulfate.....	20	N.D.
Endrin.....	5.0	N.D.
Endrin aldehyde.....	5.0	N.D.
Heptachlor.....	5.0	N.D.
Heptachlor epoxide.....	5.0	N.D.
Methoxychlor.....	5.0	N.D.
Toxaphene.....	200	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	82%
Decachlorobiphenyl (30-130).....	93%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 Estes Landfill
 Sample Descript: Water, QST-B2-(GW/73)-(5/4/99)
 Lab Number: PIE00103

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 21, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	35%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 Estes Landfill
 Sample Descript: Water, QST-B3-(GW/78)-(5/4/99)
 Lab Number: PIE00104

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 21, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	59%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 Estes Landfill
 Sample Descript: Soil, QST-B2-(S/8)-(5/3/99)
 Lab Number: PIE00105

Sampled: May 3, 1999
 Received: May 4, 1999
 Extracted: May 11, 1999
 Analyzed: May 13, 1999
 Reported: May 21, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	1,000	N.D.
Aroclor 1221.....	1,000	N.D.
Aroclor 1232.....	1,000	N.D.
Aroclor 1242.....	1,000	3,200
Aroclor 1248.....	1,000	N.D.
Aroclor 1254.....	1,000	N.D.
Aroclor 1260.....	1,000	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 20.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	Diluted out

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 Estes Landfill
 Sample Descript: Soil, QST-B2-(S/65)-(5/4/99)
 Lab Number: PIE00106

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 21, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	50	N.D.
Aroclor 1221.....	50	N.D.
Aroclor 1232.....	50	N.D.
Aroclor 1242.....	50	N.D.
Aroclor 1248.....	50	N.D.
Aroclor 1254.....	50	N.D.
Aroclor 1260.....	50	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	89%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00103.QST <11 of 44>



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 Estes Landfill
 Sample Descript: Soil, QST-B3-(S/75)-(5/4/99)
 Lab Number: PIE00107

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 21, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	50	N.D.
Aroclor 1221.....	50	N.D.
Aroclor 1232.....	50	N.D.
Aroclor 1242.....	50	N.D.
Aroclor 1248.....	50	N.D.
Aroclor 1254.....	50	N.D.
Aroclor 1260.....	50	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	87%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 Estes Landfill
 Sample Descript: Soil, QST-B3-(S/45)-(5/3/99)
 Lab Number: PIE00108

Sampled: May 3, 1999
 Received: May 4, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 21, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	50	N.D.
Aroclor 1221.....	50	N.D.
Aroclor 1232.....	50	N.D.
Aroclor 1242.....	50	N.D.
Aroclor 1248.....	50	N.D.
Aroclor 1254.....	50	N.D.
Aroclor 1260.....	50	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	87%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 Estes Landfill
 Sample Descript: Water, QST-B2-(GW/73)-(5/4/99)
 Lab Number: PIE00103

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 6, 1999
 Analyzed: May 6, 1999
 Reported: May 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone	50	110	1,3-Dichloropropane.....	10	N.D.
Benzene.....	10	N.D.	2,2-Dichloropropane.....	10	N.D.
Bromobenzene.....	25	N.D.	1,1-Dichloropropene.....	10	N.D.
Bromochloromethane.....	25	N.D.	cis-1,3-Dichloropropene.....	10	N.D.
Bromodichloromethane.....	10	N.D.	trans-1,3-Dichloropropene...	10	N.D.
Bromoform.....	25	N.D.	Ethylbenzene.....	10	N.D.
Bromomethane.....	25	N.D.	Hexachlorobutadiene.....	25	N.D.
2-Butanone (MEK).....	50	N.D.	2-Hexanone.....	50	N.D.
n-Butylbenzene.....	25	N.D.	Iodomethane.....	10	N.D.
sec-Butylbenzene.....	25	N.D.	Isopropylbenzene.....	10	N.D.
tert-Butylbenzene.....	25	N.D.	p-Isopropyltoluene.....	10	N.D.
Carbon Disulfide.....	25	N.D.	Methylene chloride.....	50	N.D.
Carbon tetrachloride.....	25	N.D.	4-Methyl-2-pentanone (MIBK).....	25	N.D.
Chlorobenzene	10	21	Methyl-tert-butyl ether (MTBE).....	25	N.D.
Chloroethane.....	25	N.D.	Naphthalene.....	25	N.D.
2-Chloroethyl vinyl ether.....	25	N.D.	n-Propylbenzene.....	10	N.D.
Chloroform.....	10	N.D.	Styrene.....	10	N.D.
Chloromethane.....	25	N.D.	1,1,1,2-Tetrachloroethane....	25	N.D.
2-Chlorotoluene.....	25	N.D.	1,1,2,2-Tetrachloroethane....	10	N.D.
4-Chlorotoluene.....	25	N.D.	Tetrachloroethene.....	10	N.D.
Dibromochloromethane.....	10	N.D.	Toluene.....	10	N.D.
1,2-Dibromo-3-chloropropane....	25	N.D.	1,2,3-Trichlorobenzene.....	25	N.D.
1,2-Dibromoethane (EDB).....	10	N.D.	1,2,4-Trichlorobenzene.....	25	N.D.
Dibromomethane.....	10	N.D.	1,1,1-Trichloroethane.....	10	N.D.
1,2-Dichlorobenzene	10	20	1,1,2-Trichloroethane.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Trichloroethene.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Trichlorofluoromethane.....	25	N.D.
Dichlorodifluoromethane.....	25	N.D.	1,2,3-Trichloropropane.....	50	N.D.
1,1-Dichloroethane.....	10	N.D.	1,2,4-Trimethylbenzene.....	10	N.D.
1,2-Dichloroethane.....	10	N.D.	1,3,5-Trimethylbenzene.....	10	N.D.
1,1-Dichloroethene.....	25	N.D.	Vinyl acetate.....	25	N.D.
cis-1,2-Dichloroethene	10	84	Vinyl chloride	25	130
trans-1,2-Dichloroethene.....	10	N.D.	Xylenes (Total).....	50	N.D.
1,2-Dichloropropane.....	10	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	78%
Toluene-d8 (75-140).....	82%
4-Bromofluorobenzene (75-135).....	77%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00103.QST <14 of 44>



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mierher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Water, QST-B3-(GW/78)-(5/4/99)
 Lab Number: PIE00104

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 5, 1999
 Analyzed: May 5, 1999
 Reported: May 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	15	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	7.5	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	7.6	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	41	Vinyl chloride.....	5.0	44
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	85%
Toluene-d8 (75-140).....	88%
4-Bromofluorobenzene (75-135).....	85%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B2-(S/8)-(5/3/99)
 Lab Number: PIE00105

Sampled: May 3, 1999
 Received: May 4, 1999
 Extracted: May 5, 1999
 Analyzed: May 5, 1999
 Reported: May 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	290
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	120	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	79%
Toluene-d8 (50-135).....	84%
4-Bromofluorobenzene (70-130).....	80%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B2-(S/65)-(5/4/99)
 Lab Number: PIE00106

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 5, 1999
 Analyzed: May 7, 1999
 Reported: May 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	370	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	89%
Toluene-d8 (50-135).....	92%
4-Bromofluorobenzene (70-130).....	88%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mierher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B3-(S/75)-(5/4/99)
 Lab Number: PIE00107

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 5, 1999
 Analyzed: May 5, 1999
 Reported: May 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	79%
Toluene-d8 (50-135).....	83%
4-Bromofluorobenzene (70-130).....	80%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B3-(S/45)-(5/3/99)
 Lab Number: PIE00108

Sampled: May 3, 1999
 Received: May 4, 1999
 Extracted: May 5, 1999
 Analyzed: May 6, 1999
 Reported: May 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	2,000	N.D.	1,3-Dichloropropane.....	390	N.D.
Benzene.....	390	N.D.	2,2-Dichloropropane.....	390	N.D.
Bromobenzene.....	980	N.D.	1,1-Dichloropropene.....	390	N.D.
Bromochloromethane.....	980	N.D.	cis-1,3-Dichloropropene.....	390	N.D.
Bromodichloromethane.....	390	N.D.	trans-1,3-Dichloropropene...	390	N.D.
Bromoform.....	980	N.D.	Ethylbenzene.....	390	N.D.
Bromomethane.....	980	N.D.	Hexachlorobutadiene.....	980	N.D.
2-Butanone (MEK).....	2,000	N.D.	2-Hexanone.....	2,000	N.D.
n-Butylbenzene.....	980	N.D.	Iodomethane.....	390	N.D.
sec-Butylbenzene.....	980	N.D.	Isopropylbenzene.....	390	N.D.
tert-Butylbenzene.....	980	N.D.	p-Isopropyltoluene.....	390	N.D.
Carbon Disulfide.....	980	N.D.	Methylene chloride.....	2,000	N.D.
Carbon tetrachloride.....	980	N.D.	4-Methyl-2-pentanone (MIBK).....	980	N.D.
Chlorobenzene.....	390	N.D.	Methyl-tert-butyl ether (MTBE).....	980	N.D.
Chloroethane.....	980	N.D.	Naphthalene.....	980	N.D.
2-Chloroethyl vinyl ether.....	980	N.D.	n-Propylbenzene.....	390	N.D.
Chloroform.....	390	N.D.	Styrene.....	390	N.D.
Chloromethane.....	980	N.D.	1,1,1,2-Tetrachloroethane....	980	N.D.
2-Chlorotoluene.....	980	N.D.	1,1,2,2-Tetrachloroethane....	390	N.D.
4-Chlorotoluene.....	980	N.D.	Tetrachloroethene.....	390	N.D.
Dibromochloromethane.....	390	N.D.	Toluene.....	390	N.D.
1,2-Dibromo-3-chloropropane....	980	N.D.	1,2,3-Trichlorobenzene.....	980	N.D.
1,2-Dibromoethane (EDB).....	390	N.D.	1,2,4-Trichlorobenzene.....	980	N.D.
Dibromomethane.....	390	N.D.	1,1,1-Trichloroethane.....	390	N.D.
1,2-Dichlorobenzene.....	390	N.D.	1,1,2-Trichloroethane.....	390	N.D.
1,3-Dichlorobenzene.....	390	N.D.	Trichloroethene.....	390	N.D.
1,4-Dichlorobenzene.....	390	N.D.	Trichlorofluoromethane.....	980	N.D.
Dichlorodifluoromethane.....	980	N.D.	1,2,3-Trichloropropane.....	2,000	N.D.
1,1-Dichloroethane.....	390	N.D.	1,2,4-Trimethylbenzene.....	390	N.D.
1,2-Dichloroethane.....	390	N.D.	1,3,5-Trimethylbenzene.....	390	N.D.
1,1-Dichloroethene.....	980	N.D.	Vinyl acetate.....	980	N.D.
cis-1,2-Dichloroethene.....	390	N.D.	Vinyl chloride.....	980	N.D.
trans-1,2-Dichloroethene.....	390	N.D.	Xylenes (Total).....	1,200	N.D.
1,2-Dichloropropane.....	390	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 3.9.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	106%
Toluene-d8 (50-135).....	108%
4-Bromofluorobenzene (70-130).....	103%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00103.QST <19 of 44>



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 Estes Landfill
 Sample Descript: Water, Trip Blank B2
 Lab Number: PIE00109

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 5, 1999
 Analyzed: May 5, 1999
 Revised: Jun 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropane.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

R.R.

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	85%
Toluene-d8 (75-140).....	91%
4-Bromofluorobenzene (75-135).....	86%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 Estes Landfill
 Sample Descript: Water, Trip Blank B3
 Lab Number: PIE00110

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 5, 1999
 Analyzed: May 5, 1999
 Revised: Jun 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	85%
Toluene-d8 (75-140).....	91%
4-Bromofluorobenzene (75-135).....	87%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Water, QST-B2-(GW/73)-(5/4/99)
 Lab Number: PIE00103

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 10, 1999
 Analyzed: May 12, 1999
 Reported: May 21, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	12	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine
 Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	64%
Phenol-d6 (40-115).....	74%
2,4,6-Tribromophenol (40-140).....	89%
Nitrobenzene-d5 (35-120).....	66%
2-Fluorobiphenyl (30-150).....	77%
Terphenyl-d14 (45-150).....	77%

Robyn Rice
 Project Manager

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Water, QST-B3-(GW/78)-(5/4/99)
 Lab Number: PIE00104

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 10, 1999
 Analyzed: May 12, 1999
 Reported: May 21, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	61%
Phenol-d6 (40-115).....	68%
2,4,6-Tribromophenol (40-140).....	85%
Nitrobenzene-d5 (35-120).....	59%
2-Fluorobiphenyl (30-150).....	69%
Terphenyl-d14 (45-150).....	80%

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B2-(S/8)-(5/3/99)
 Lab Number: PIE00105

Sampled: May 3, 1999
 Received: May 4, 1999
 Extracted: May 7, 1999
 Analyzed: May 10, 1999
 Reported: May 21, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	10,000	N.D.	Dimethyl phthalate.....	10,000	N.D.
Acenaphthylene.....	10,000	N.D.	4,6-Dinitro-2-methylphenol.....	25,000	N.D.
Aniline.....	15,000	N.D.	2,4-Dinitrophenol.....	25,000	N.D.
Anthracene.....	10,000	N.D.	2,4-Dinitrotoluene.....	10,000	N.D.
Azobenzene.....	15,000	N.D.	2,6-Dinitrotoluene.....	10,000	N.D.
Benzidine.....	100,000	N.D.	Di-N-octyl phthalate.....	50,000	N.D.
Benzoic Acid.....	50,000	N.D.	Fluoranthene.....	10,000	N.D.
Benz(a)anthracene.....	10,000	N.D.	Fluorene.....	10,000	N.D.
Benzo(b)fluoranthene.....	20,000	N.D.	Hexachlorobenzene.....	10,000	N.D.
Benzo(k)fluoranthene.....	20,000	N.D.	Hexachlorobutadiene.....	10,000	N.D.
Benzo(g,h,i)perylene.....	15,000	N.D.	Hexachlorocyclopentadiene.....	50,000	N.D.
Benzo(a)pyrene.....	15,000	N.D.	Hexachloroethane.....	20,000	N.D.
Benzyl alcohol.....	20,000	N.D.	Indeno(1,2,3-cd)pyrene.....	20,000	N.D.
Bis(2-chloroethoxy)methane.....	10,000	N.D.	Isophorone.....	10,000	N.D.
Bis(2-chloroethyl)ether.....	10,000	N.D.	2-Methylnaphthalene.....	10,000	N.D.
Bis(2-chloroisopropyl)ether.....	10,000	N.D.	2-Methylphenol.....	15,000	N.D.
Bis(2-ethylhexyl)phthalate.....	100,000	N.D.	4-Methylphenol.....	15,000	N.D.
4-Bromophenyl phenyl ether.....	15,000	N.D.	Naphthalene.....	15,000	N.D.
Butyl benzyl phthalate.....	50,000	N.D.	2-Nitroaniline.....	20,000	N.D.
4-Chloroaniline.....	10,000	N.D.	3-Nitroaniline.....	20,000	N.D.
2-Chloronaphthalene.....	10,000	N.D.	4-Nitroaniline.....	50,000	N.D.
4-Chloro-3-methylphenol.....	10,000	N.D.	Nitrobenzene.....	50,000	N.D.
2-Chlorophenol.....	25,000	N.D.	2-Nitrophenol.....	10,000	N.D.
4-Chlorophenyl phenyl ether.....	10,000	N.D.	4-Nitrophenol.....	50,000	N.D.
Chrysene.....	10,000	N.D.	N-Nitrosodiphenylamine.....	20,000	N.D.
Dibenz(a,h)anthracene.....	10,000	N.D.	N-Nitroso-di-N-propylamine.....	15,000	N.D.
Dibenzofuran.....	10,000	N.D.	Pentachlorophenol.....	50,000	N.D.
Di-N-butyl phthalate.....	25,000	N.D.	Phenanthrene.....	10,000	N.D.
1,3-Dichlorobenzene.....	10,000	N.D.	Phenol.....	15,000	N.D.
1,4-Dichlorobenzene.....	10,000	N.D.	Pyrene.....	15,000	N.D.
1,2-Dichlorobenzene.....	10,000	N.D.	1,2,4-Trichlorobenzene.....	10,000	N.D.
3,3-Dichlorobenzidine.....	50,000	N.D.	2,4,5-Trichlorophenol.....	15,000	N.D.
2,4-Dichlorophenol.....	10,000	N.D.	2,4,6-Trichlorophenol.....	15,000	N.D.
Diethyl phthalate.....	10,000	N.D.			
2,4-Dimethylphenol.....	25,000	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to low sample volume, the sample required dilution. Reporting limits for this sample have been raised by a factor of 100.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	Diluted out
Phenol-d6 (24-113).....	Diluted out
2,4,6-Tribromophenol (19-122).....	Diluted out
Nitrobenzene-d5 (23-120).....	Diluted out
2-Fluorobiphenyl (30-115).....	Diluted out
Terphenyl-d14 (18-137).....	Diluted out

Robyn Rice
 Project Manager



ST Environmental
426 N. 44th St., Suite 110
Phoenix, AZ 85008
Attention: John Miehler

Client Project ID: 6699030 ESTES Landfill
Sample Descript: Soil, QST-B2-(S/65)-(5/4/99)
Lab Number: PIE00106

Sampled: May 4, 1999
Received: May 4, 1999
Extracted: May 7, 1999
Analyzed: May 10, 1999
Reported: May 21, 1999

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	83%
Phenol-d6 (24-113).....	88%
2,4,6-Tribromophenol (19-122).....	102%
Nitrobenzene-d5 (23-120).....	89%
2-Fluorobiphenyl (30-115).....	88%
Terphenyl-d14 (18-137).....	89%

Robyn Rice
Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00103.QST <25 of 44>

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B3-(S/75)-(5/4/99)
 Lab Number: PIE00107

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 7, 1999
 Analyzed: May 10, 1999
 Reported: May 21, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	83%
Phenol-d6 (24-113).....	91%
2,4,6-Tribromophenol (19-122).....	101%
Nitrobenzene-d5 (23-120).....	84%
2-Fluorobiphenyl (30-115).....	92%
Terphenyl-d14 (18-137).....	84%

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B3-(S/45)-(5/3/99)
 Lab Number: PIE00108

Sampled: May 3, 1999
 Received: May 4, 1999
 Extracted: May 7, 1999
 Analyzed: May 10, 1999
 Reported: May 21, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	82%
Phenol-d6 (24-113).....	90%
2,4,6-Tribromophenol (19-122).....	101%
Nitrobenzene-d5 (23-120).....	85%
2-Fluorobiphenyl (30-115).....	86%
Terphenyl-d14 (18-137).....	96%

Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Water, QST-B2-(GW/73)-(5/4/99)
 Lab Number: PIE00103

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 5, 1999
 Analyzed: May 5-18, 1999
 Reported: May 21, 1999

E.P.A. PRIORITY POLLUTANT METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/05/99	05/18/99
Arsenic.....	EPA 200.7	0.050	0.098	05/05/99	05/06/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/05/99	05/06/99
Cadmium.....	EPA 200.7	0.0050	0.022	05/05/99	05/06/99
Chromium.....	EPA 200.7	0.010	0.31	05/05/99	05/18/99
Copper.....	EPA 200.7	0.020	1.7	05/05/99	05/06/99
Lead.....	EPA 200.7	0.050	0.11	05/05/99	05/06/99
Mercury.....	EPA 245.1	0.00020	0.0028	05/05/99	05/05/99
Nickel.....	EPA 200.7	0.050	0.28	05/05/99	05/18/99
Selenium.....	EPA 200.7	0.060	N.D.	05/05/99	05/06/99
Silver.....	EPA 200.7	0.050	N.D.	05/05/99	05/06/99
Thallium.....	EPA 200.7	0.050	N.D.	05/05/99	05/06/99
Zinc.....	EPA 200.7	0.050	0.25	05/05/99	05/18/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00103.QST <28 of 44>

ST Environmental
 726 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Water, QST-B3-(GW/78)-(5/4/99)
 Lab Number: PIE00104

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 5, 1999
 Analyzed: May 5-20, 1999
 Reported: May 21, 1999

E.P.A. PRIORITY POLLUTANT METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/05/99	05/18/99
Arsenic.....	EPA 200.7	0.050	N.D.	05/05/99	05/06/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/05/99	05/06/99
Cadmium.....	EPA 200.7	0.0050	N.D.	05/05/99	05/06/99
Chromium.....	EPA 200.7	0.010	0.073	05/05/99	05/18/99
Copper.....	EPA 200.7	0.020	0.18	05/05/99	05/06/99
Lead.....	EPA 200.7	0.050	0.14	05/05/99	05/06/99
Mercury.....	EPA 245.1	0.00020	0.00024	05/05/99	05/05/99
Nickel.....	EPA 200.7	0.050	0.080	05/05/99	05/18/99
Selenium.....	EPA 200.7	0.060	N.D.	05/05/99	05/06/99
Silver.....	EPA 200.7	0.050	N.D.	05/05/99	05/06/99
Thallium.....	EPA 200.7	0.050	N.D.	05/05/99	05/06/99
Zinc.....	EPA 200.7	0.050	0.055	05/05/99	05/20/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B2-(S/8)-(5/3/99)
 Lab Number: PIE00105

Sampled: May 3, 1999
 Received: May 4, 1999
 Extracted: May 6-7, 1999
 Analyzed: May 6-14, 1999
 Reported: May 21, 1999

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

E.P.A. PRIORITY POLLUTANT METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Arsenic.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/07/99	05/14/99
Cadmium.....	EPA 6010B	0.50	1.2	05/07/99	05/10/99
Chromium.....	EPA 6010B	2.0	16	05/07/99	05/10/99
Copper.....	EPA 6010B	2.5	58	05/07/99	05/10/99
Lead.....	EPA 6010B	2.5	39	05/07/99	05/10/99
Mercury.....	EPA 7471A	0.020	0.11	05/06/99	05/06/99
Nickel.....	EPA 6010B	2.5	10	05/07/99	05/10/99
Selenium.....	EPA 6010B	10	N.D.	05/07/99	05/10/99
Silver.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99
Thallium.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Zinc.....	EPA 6010B	2.5	68	05/07/99	05/10/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



Del Mar Analytical

QST Environmental
426 N. 44th St., Suite 110
Phoenix, AZ 85008
Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
Sample Descript: Soil, QST-B2-(S/65)-(5/4/99)
Lab Number: PIE00106

Sampled: May 4, 1999
Received: May 4, 1999
Extracted: May 6-7, 1999
Analyzed: May 6-14, 1999
Reported: May 21, 1999

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

E.P.A. PRIORITY POLLUTANT METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	20*	N.D.	05/07/99	05/13/99
Arsenic.....	EPA 6010B	5.0	9.3	05/07/99	05/10/99
Beryllium.....	EPA 6010B	2.0*	N.D.	05/07/99	05/13/99
Cadmium.....	EPA 6010B	0.50	0.83	05/07/99	05/10/99
Chromium.....	EPA 6010B	2.0	19	05/07/99	05/10/99
Copper.....	EPA 6010B	2.5	24	05/07/99	05/10/99
Lead.....	EPA 6010B	2.5	6.2	05/07/99	05/10/99
Mercury.....	EPA 7471A	0.020	N.D.	05/06/99	05/06/99
Nickel.....	EPA 6010B	2.5	12	05/07/99	05/10/99
Selenium.....	EPA 6010B	10	N.D.	05/07/99	05/10/99
Silver.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99
Thallium.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Zinc.....	EPA 6010B	2.5	22	05/07/99	05/10/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 4.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B3-(S/75)-(5/4/99)
 Lab Number: PIE00107

Sampled: May 4, 1999
 Received: May 4, 1999
 Extracted: May 6-7, 1999
 Analyzed: May 6-14, 1999
 Reported: May 21, 1999

E.P.A. PRIORITY POLLUTANT METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Arsenic.....	EPA 6010B	5.0	11	05/07/99	05/10/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/07/99	05/14/99
Cadmium.....	EPA 6010B	0.50	0.99	05/07/99	05/10/99
Chromium.....	EPA 6010B	2.0	25	05/07/99	05/10/99
Copper.....	EPA 6010B	2.5	44	05/07/99	05/10/99
Lead.....	EPA 6010B	2.5	6.1	05/07/99	05/10/99
Mercury.....	EPA 7471A	0.020	N.D.	05/06/99	05/06/99
Nickel.....	EPA 6010B	2.5	17	05/07/99	05/10/99
Selenium.....	EPA 6010B	10	N.D.	05/07/99	05/10/99
Silver.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99
Thallium.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Zinc.....	EPA 6010B	2.5	46	05/07/99	05/10/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00103.QST <32 of 44>



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mierher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B3-(S/45)-(5/3/99)
 Lab Number: PIE00108

Sampled: May 3, 1999
 Received: May 4, 1999
 Extracted: May 6-7, 1999
 Analyzed: May 6-13, 1999
 Reported: May 21, 1999

E.P.A. PRIORITY POLLUTANT METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	20*	N.D.	05/07/99	05/13/99
Arsenic.....	EPA 6010B	5.0	9.9	05/07/99	05/10/99
Beryllium.....	EPA 6010B	2.0*	N.D.	05/07/99	05/13/99
Cadmium.....	EPA 6010B	0.50	0.97	05/07/99	05/10/99
Chromium.....	EPA 6010B	2.0	17	05/07/99	05/10/99
Copper.....	EPA 6010B	2.5	63	05/07/99	05/10/99
Lead.....	EPA 6010B	2.5	4.9	05/07/99	05/10/99
Mercury.....	EPA 7471A	0.020	N.D.	05/06/99	05/06/99
Nickel.....	EPA 6010B	2.5	14	05/07/99	05/10/99
Selenium.....	EPA 6010B	10	N.D.	05/07/99	05/10/99
Silver.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99
Thallium.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Zinc.....	EPA 6010B	2.5	39	05/07/99	05/10/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 4.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00103.QST <33 of 44>

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 21, 1999
 Matrix: Water

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)			µg/L (ppb)
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	84%
Decachlorobiphenyl (30-130).....	80%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 21, 1999
 Matrix: Soil

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		µg/Kg (ppb)
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	82%
Decachlorobiphenyl (30-130).....	88%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00103.QST <35 of 44>

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 21, 1999
 Matrix: Water

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)


 Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Tetrachloro-m-xylene (30-130)....	94%
Decachlorobiphenyl (30-130).....	85%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 21, 1999
 Matrix: Soil

POLYCHLORINATED BIPHENYLS by GC (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	50	N.D.
Aroclor 1221.....	50	N.D.
Aroclor 1232.....	50	N.D.
Aroclor 1242.....	50	N.D.
Aroclor 1248.....	50	N.D.
Aroclor 1254.....	50	N.D.
Aroclor 1260.....	50	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	88%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 5, 1999
 Analyzed: May 5, 1999
 Revised: Jun 21, 1999
 Matrix: Water

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	86%
Toluene-d8 (75-140).....	93%
4-Bromofluorobenzene (75-135).....	87%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 6, 1999
 Analyzed: May 6, 1999
 Reported: May 21, 1999
 Matrix: Water

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	5.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	77%
Toluene-d8 (75-140).....	79%
4-Bromofluorobenzene (75-135).....	76%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 16 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 5, 1999
 Analyzed: May 5, 1999
 Reported: May 21, 1999
 Matrix: Soil

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropane.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane...	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane...	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	86%
Toluene-d8 (50-135).....	93%
4-Bromofluorobenzene (70-130).....	87%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Extracted: May 10, 1999
 Analyzed: May 12, 1999
 Reported: May 21, 1999
 Matrix: Water

Method Blank

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	81%
Phenol-d6 (40-115).....	86%
2,4,6-Tribromophenol (40-140).....	97%
Nitrobenzene-d5 (35-120).....	74%
2-Fluorobiphenyl (30-150).....	88%
Terphenyl-d14 (45-150).....	80%

Robyn Rice
 Project Manager

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 7, 1999
 Analyzed: May 10, 1999
 Reported: May 21, 1999
 Matrix: Soil

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	76%
Phenol-d6 (24-113).....	80%
2,4,6-Tribromophenol (19-122).....	79%
Nitrobenzene-d5 (23-120).....	80%
2-Fluorobiphenyl (30-115).....	85%
Terphenyl-d14 (18-137).....	87%



ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 5, 1999
 Analyzed: May 5-20, 1999
 Reported: May 21, 1999
 Matrix: Water

E.P.A. PRIORITY POLLUTANT METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/05/99	05/18/99
Arsenic.....	EPA 200.7	0.050	N.D.	05/05/99	05/06/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/05/99	05/06/99
Cadmium.....	EPA 200.7	0.0050	N.D.	05/05/99	05/06/99
Chromium.....	EPA 200.7	0.010	N.D.	05/05/99	05/18/99
Copper.....	EPA 200.7	0.020	N.D.	05/05/99	05/06/99
Lead.....	EPA 200.7	0.050	N.D.	05/05/99	05/06/99
Mercury.....	EPA 245.1	0.00020	N.D.	05/05/99	05/05/99
Nickel.....	EPA 200.7	0.050	N.D.	05/05/99	05/18/99
Selenium.....	EPA 200.7	0.060	N.D.	05/05/99	05/06/99
Silver.....	EPA 200.7	0.050	N.D.	05/05/99	05/06/99
Thallium.....	EPA 200.7	0.050	N.D.	05/05/99	05/06/99
Zinc.....	EPA 200.7	0.050	N.D.	05/05/99	May 18-20, 1999

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 6-7, 1999
 Analyzed: May 6-14, 1999
 Reported: May 21, 1999
 Matrix: Soil

E.P.A. PRIORITY POLLUTANT METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/07/99	May 10-13, 1999
Arsenic.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Beryllium.....	EPA 6010B	0.50	N.D.	05/07/99	May 13-14, 1999
Cadmium.....	EPA 6010B	0.50	N.D.	05/07/99	05/10/99
Chromium.....	EPA 6010B	2.0	N.D.	05/07/99	05/10/99
Copper.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99
Lead.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99
Mercury.....	EPA 7471A	0.020	N.D.	05/06/99	05/06/99
Nickel.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99
Selenium.....	EPA 6010B	10	N.D.	05/07/99	05/10/99
Silver.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99
Thallium.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Zinc.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



MS/MSD DATA REPORT

EPA Method: 8081
 Matrix: Water
 Instrument: GC

Date: 05/12/99
 Sample #: LCS/LCSD*
 Batch #: IE11PE1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
DDE	0	0.5	0.388	0.416	78%	83%	7%	40	55-125
DDD	0	0.5	0.410	0.442	82%	88%	8%	20	60-130
DDT	0	0.5	0.430	0.469	86%	94%	9%	20	55-145

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) Please Note: This analysis was performed at Del Mar Analytical-Irvine (AZ0426)

MS/MSD DATA REPORT

EPA Method: 8081A
 Matrix: Soil
 Instrument: GC

Date: 5/11/99
 Sample #: IE00782
 Batch #: IE11PE1S

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
DDE	220	20	249.0	246.0	145%	130%	1%	50	20-145
DDD	0	20	40.6	38.9	203%	195%	4%	30	50-130
DDT	0	20	55.3	54.8	277%	274%	1%	30	20-160

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Colton (AZ0062).



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD 8081

DATE: 5/11/99

Analyte	St	LCS	PR
	ppb	ppb	%
DDE	20	20.1	101%
DDD	20	19.1	96%
DDT	20	21.9	110%

Definition of Terms:

- St. Standard Concentration
- LCS. Laboratory Control Sample Result
- PR. Percent Recovery of LCS; $(LCS/St) \times 100$

QA/QC CRITERIA: QA/QC is within acceptance limits.

Del Mar Analytical



GC CALIBRATION CHECK CRITERIA

Method: 8081A
QC Batch: E11 #33

Associated Samples: PIE00103

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average $\%$ recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The $\%$ recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average $\%$ recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
Dieldrin	1	117
Endrin	1	117
DDD	1	120

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



GC CALIBRATION CHECK CRITERIA

Method: 8081A
QC Batch: #18

Associated Samples: PIE00103

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
D-BHC	2	84
Dieldrin	1	117

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



GC CALIBRATION CHECK CRITERIA

Method: 8081A
 QC Batch: #6

Associated Samples: PIE00103

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
D-BHC	2	54
DDD	2	77
Endosulfan Sulfate	2	64
Methoxychlor	2	69
Endrin Ketone	2	69

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result. All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result. An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

GC CALIBRATION CHECK CRITERIA

Method: 8081A
 QC Batch: E12 #37

Associated Samples: PIE00103

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
Heptachlor	2	80
B-BHC	2	67
Heptachlor Epoxide	2	83
Endosulfan I	2	84
Endosulfan II	2	81

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



GC CALIBRATION CHECK CRITERIA

Method: 8081A
QC Batch: E12 #6

Associated Samples: PIE00103

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
B-BHC	2	73

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

GC CALIBRATION CHECK CRITERIA

Method: 8081A
 QC Batch: E12 #24

Associated Samples: PIE00103

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
B-BHC	2	74
D-BHC	1	125
Endrin Ketone	1	117

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



GC CALIBRATION CHECK CRITERIA

Method: 8081A
QC Batch: E12 #37

Associated Samples: PIE00103

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
Heptachlor	2	80
B-BHC	2	67
Heptachlor Epoxide	2	83
Endosulfan I	2	84
Endosulfan II	2	81

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



GC CALIBRATION CHECK CRITERIA

Method: 8081A
 QC Batch: E12 #24

Associated Samples: PIE00103

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
B-BHC	2	74
D-BHC	1	125
Endrin Ketone	1	117

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.

MS/MSD DATA REPORT

EPA Method: 8082 (PCB's only)
 Matrix: Water
 Instrument: GC

Date: 5/12/99
 Sample #: LCS/LCSD*
 Batch #: IE11PE1W

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
AR 1016	0	4.0	3.28	3.33	82%	83%	2%	≤ 50	60-140%
AR 1260	0	4.0	2.95	3.10	74%	78%	5%	≤ 50	60-140%

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



MS/MSD DATA REPORT

EPA Method: 8082 (PCB's only)
 Matrix: Soil
 Instrument: GC

Date: 5/11/99
 Sample #: IE00907
 Batch #: IE11PE1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
PCB 1016 (Arochlor)	0	160	136	150	85%	94%	10%	50	60-140
PCB 1260 (Arochlor)	0	160	122	138	76%	86%	12%	50	60-140

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).

MS/MSD DATA REPORT

EPA Method: 8260B
 Matrix: Water
 Instrument: GCMS

Date: 05/05/99
 Sample #: PIE00104
 Batch #: IE05011W

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD
	ppb	ppb	ppb	ppb	%	%	%
Vinyl Chloride	43.7	25	58.8	58.4	60%	59%	1%
1,1-Dichloroethene	0.0	25	26.9	27.9	108%	112%	3.6%
1,1-Dichloroethane	0.0	25	23.1	24.2	92%	97%	4.7%
Chloroform	0.0	25	23.9	24.8	96%	99%	3.7%
1,2-Dichloroethane	0.0	25	20.6	21.5	82%	86%	4.3%
Benzene	0.0	25	27.4	28.6	110%	114%	4.3%
Trichloroethene	0.0	25	24.1	25.4	96%	102%	5.3%
Toluene	0.0	25	25.9	26.8	104%	107%	3.4%
Tetrachloroethene	0.0	25	24.3	24.9	97%	100%	2.4%
Chlorobenzene	7.48	25	29.9	31.0	90%	94%	3.6%

RPD	PR1/PR2
%	%
≤ 20	45-170%
≤ 20	70-130%
≤ 20	80-135%
≤ 20	80-135%
≤ 20	80-130%
≤ 20	75-135%
≤ 20	75-130%
≤ 20	75-135%
≤ 20	70-135%
≤ 20	75-125%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC was within acceptance limits.



BS/BSD DATA REPORT

EPA Method: 8260B
 Matrix: Soil
 Instrument: GCMS

Date: 05/05/99
 Sample #: PIE00107
 Batch #: IE05MS1S

Acceptance Limits

Analyte	R1	Sp	BS	BSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Vinyl Chloride	0.0	500	553	1564	111%	313%	95.5%	≤ 112	0-100%
1,1-Dichloroethene	0.0	500	1317	1262	263%	252%	4.3%	≤ 20	70-125%
1,1-Dichloroethane	0.0	500	1121	1124	224%	225%	0.3%	≤ 20	75-115%
Chloroform	0.0	500	1143	1131	229%	226%	1.1%	≤ 26	75-120%
1,2-Dichloroethane	0.0	500	997	996	199%	199%	0.1%	≤ 20	70-115%
Benzene	0.0	500	1297	1256	259%	251%	3.2%	≤ 20	80-120%
Trichloroethene	0.0	500	1126	1174	225%	235%	4.2%	≤ 20	75-120%
Toluene	0.0	500	1179	1160	236%	232%	1.6%	≤ 20	80-125%
Tetrachloroethene	0.0	500	1103	1076	221%	215%	2.5%	≤ 20	75-120%
Chlorobenzene	0.0	500	1094	1100	219%	220%	1%	≤ 20	75-115%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- BS..... Bench Spike Result
- MSD..... Bench Spike Duplicate Result
- PR1..... Percent Recovery of BS; ((BS-R1)/SP) x 100
- PR2..... Percent Recovery of BSD; ((BSD-R1)/SP) x 100
- RPD..... Relative Percent Difference; ((BS-BSD)/(BS+BSD)/2) x 100
- Acceptance Limits..... Statistically Determined on an annual basis.

QA/QC Criteria..... The BS/BSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



LABORATORY CONTROL SAMPLE

EPA METHOD: 8260B

DATE: 5/5/99

Analyte	St	R1	PR	QC Limits
	ppb	ppb	%	%
Vinyl Chloride	500	98	20%	0-110
1,1-Dichloroethene	500	456	91%	46-134
1,1-Dichloroethane	500	446	89%	62-122
Chloroform	500	458	92%	66-130
1,2-Dichloroethane	500	407	81%	61-121
Benzene	500	514	103%	68-128
Trichloroethene	500	448	90%	59-119
Toluene	500	606	121%	62-130
1,2-Dichloroethene	500	448	90%	64-124
Chlorobenzene	500	465	93%	75-115

Definition of Terms:

St. Concentration standard added to sample

R1..... Standard Result

PR..... Percent Recovery

Del Mar Analytical



MS/MSD DATA REPORT

EPA METHOD: 8270

Matrix: Soil

Date Analyzed: 5/10/99

Sample: IE00623

Batch: IE07SE1S

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	MEAN PR	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	%	RPD	MPR
Phenol *	0	50	56	58	112%	116%	3.5%	114%	20	30-110
2-Chlorophenol	0	50	52	56	104%	112%	7.4%	108%	25	30-110
1,4-Dichlorobenzene	0	50	47	53	94%	106%	12%	100%	30	25-110
N-Nitroso-di-n-propylamine *	0	50	54	64	108%	128%	17%	118%	20	35-110
1,2,4-Trichlorobenzene *	0	50	57	57	114%	114%	0.0%	114%	25	30-110
4-Chloro-3-methylphenol *	0.2	50	58	60	116%	120%	3.4%	118%	25	40-110
Acenaphthene *	0.1	50	55	56	110%	112%	1.8%	111%	20	30-110
2,4-Dinitrotoluene *	0.3	50	59	59	117%	117%	0.0%	117%	20	35-110
4-Nitrophenol *	2.1	50	70	71	136%	138%	1.4%	137%	25	15-135
Pentachlorophenol *	0	50	65	70	130%	140%	7.4%	135%	30	30-115
Pyrene	0.1	50	50	56	100%	112%	11%	106%	25	30-140

* The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects.
 See LCS for batch validation.

Definition of Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1) / SP) X 100
- PR2..... Percent Recovery of MSD; ((MSD-R1) / SP) X 100
- RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
- Acceptance Limits..... Statistically determined on an annual basis.





LCS DATA REPORT

EPA METHOD: 8270

Date Analyzed: 5/10/99

Batch: IE07SE1S

Analyte	St	R1	PR	Acceptance Limits
	ppb	ppb	%	%
Phenol	50	47	94%	40-110
2-Chlorophenol	50	46	92%	40-110
1,4-Dichlorobenzene	50	42	84%	35-110
N-Nitroso-di-n-propylamine	50	49	98%	45-120
1,2,4-Trichlorobenzene	50	45	90%	45-110
4-Chloro-3-methylphenol	50	49	98%	50-115
Acenaphthene	50	49	98%	45-120
2,4-Dinitrotoluene	50	52	104%	55-120
4-Nitrophenol	50	56	112%	45-120
Pentachlorophenol	50	62	124%	50-125
Pyrene	50	51	102%	70-120

Definition of Terms:

St. Concentration of standard added to blank.

R1 Standard Result

PR Percent Recovery of R1; $(R1 / St) \times 100$



MS/MSD DATA REPORT

EPA Method: 8260B
 Matrix: Water
 Instrument: GCMS

Date: 05/06/99
 Sample #: PIE00186
 Batch #: IE06011W

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Vinyl Chloride	54.3	25	78.7	77.0	98%	91%	2%	≤ 20	45-170%
1,1-Dichloroethene	0.0	25	24.6	25.5	98%	102%	3.6%	≤ 20	70-130%
1,1-Dichloroethane	0.0	25	23.9	24.3	96%	97%	1.7%	≤ 20	80-135%
Chloroform	0.0	25	23.5	24.2	94%	97%	2.9%	≤ 20	80-135%
1,2-Dichloroethane	0.0	25	22.6	23.2	90%	93%	2.6%	≤ 20	80-130%
Benzene	0.0	25	25.2	26.1	101%	104%	3.5%	≤ 20	75-135%
Trichloroethene	0.0	25	23.7	24.0	95%	96%	1.3%	≤ 20	75-130%
Toluene	0.0	25	23.5	23.9	94%	96%	1.7%	≤ 20	75-135%
Tetrachloroethene	0.0	25	22.4	23.3	90%	93%	3.9%	≤ 20	70-135%
Chlorobenzene	5.55	25	28.8	29.5	93%	96%	2.4%	≤ 20	75-125%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

EPA Method: 8270
 Matrix: Water
 Instrument: GCMS

Date: 05/12/99
 Sample #: LCS/LCSD*
 Batch #: IE10SE1W

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Phenol	0.1	50.0	37.0	38.0	74%	76%	3%	15	40-110
2-Chlorophenol	0.0	50.0	38.0	40.0	76%	80%	5%	15	40-110
1,4-Dichlorobenzene	0.0	50.0	31.0	32.0	62%	64%	3%	15	35-110
N-Nitroso-di-n-propylamine	0.0	50.0	41.0	41.0	82%	82%	0%	20	45-120
1,2,4-Trichlorobenzene	0.0	50.0	34.0	34.0	68%	68%	0%	15	44-110
Chloro-3-methylphenol	0.0	50.0	43.0	44.0	86%	88%	2%	20	50-115
Acenaphthene	0.0	50.0	42.0	43.0	84%	86%	2%	15	50-115
2,4-Dinitrotoluene	0.0	50.0	45.0	47.0	90%	94%	4%	15	55-120
4-Nitrophenol	0.0	50.0	50.0	51.0	100%	102%	2%	15	45-120
Pentachlorophenol	0.0	50.0	51.0	52.0	102%	104%	2%	20	50-125
Pyrene	0.1	50.0	43.0	44.0	86%	88%	2%	25	70-120

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

A/QC Criteria..... All QA/QC criteria was within acceptance limits.



MS/MSD DATA REPORT

METHOD: 200.7
INSTRUMENT: ICP
MATRIX: Water

Date: 5/6/99
Sample #: PIE00111

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Arsenic	0	1.0	0.962	0.940	96%	94%	2.3%	95%
Beryllium	0	1.0	0.956	0.959	96%	96%	0.3%	96%
Cadmium	0	1.0	0.937	0.939	94%	94%	0.2%	94%
Copper	0	1.0	0.955	0.957	96%	96%	0.2%	96%
Lead	0	1.0	0.934	0.929	93%	93%	0.5%	93%
Selenium	0	1.0	0.955	0.946	96%	95%	0.9%	95%
Silver	0	0.05	0.0506	0.0507	101%	101%	0.2%	101%
Thallium	0	1.0	0.897	0.905	90%	91%	0.9%	90%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... RPD: $< \text{ or } = 20\%$
 MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

METHOD: 200.7
INSTRUMENT: ICP
MATRIX: Water

Date: 5/20/99
Sample #: PIE00111

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Zinc	0	1.0	0.902	0.975	90%	98%	7.8%	94%

Definition of terms:

- R1.....Result of Sample Analysis
- SP.....Spike Concentration Added to Sample
- MS.....Matrix Spike Result
- MSD.....Matrix Spike Duplicate Result
- PR1.....Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2.....Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD.....Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits.....RPD: < or = 20%
 MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

METHOD: 200.7
INSTRUMENT: ICP
MATRIX: Water

Date: 5/18/99
Sample #: PIE00111

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony	0	1.0	0.984	0.992	98%	99%	0.8%	99%
Chromium	0	1.0	0.923	0.923	92%	92%	0.0%	92%
Nickel	0	1.0	0.932	0.956	93%	96%	2.5%	94%
Zinc	0	1.0	0.785	0.787	79%	79%	0.3%	79%

Definition of terms:

- R1.....Result of Sample Analysis
- SP.....Spike Concentration Added to Sample
- MS.....Matrix Spike Result
- MSD.....Matrix Spike Duplicate Result
- PR1.....Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2.....Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD.....Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits.....RPD: < or = 20%
 MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.





MS/MSD DATA REPORT

EPA Method: 245.1
 Matrix: Water
 Instrument: N/A

Date: 05/05/99
 Sample #: PID01648
 Batch #: IE05HG1W

Analyte								<u>Acceptance Limits</u>	
	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>RPD</u>	<u>PR1/PR2</u>
	ppm	ppm	ppm	ppm	%	%	%	%	%
Mercury	0	0.00500	0.00581	0.00583	116%	117%	0.3%	≤ 20	70-130%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC was within acceptance limit.



MS/MSD DATA REPORT

METHOD: 6010B
INSTRUMENT: ICP
MATRIX: Soil

Date: 5/10/99
Sample #: PID01616

Analyte	MEAN							
	R1	SP	MS	MSD	PR1	PR2	RPD	PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony	0	50.0	9.40	4.37	19%	9%	73.1%	14%
Arsenic	0	50.0	56.7	57.4	113%	115%	1.2%	114%
Beryllium	0	50.0	50.8	50.3	102%	101%	1.0%	101%
Cadmium	1.8	50.0	50.6	51.4	98%	99%	1.6%	98%
Chromium	22.6	50.0	72.2	73.3	99%	101%	1.5%	100%
Copper	37.7	50.0	105	86.3	135%	97%	19.6%	116%
Lead	12.4	50.0	60.4	60.9	96%	97%	0.8%	97%
Nickel	25.7	50.0	71.6	72.9	92%	94%	1.8%	93%
Selenium	0	50.0	40.5	40.6	81%	81%	0.2%	81%
Silver	0	50.0	52.1	40.7	104%	81%	24.6%	93%
Thallium	0	50.0	45.7	42.3	91%	85%	7.7%	88%
Zinc	76.9	50.0	120	119	86%	84%	0.8%	85%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1) / SP) X 100
- PR2..... Percent Recovery of MSD; ((MSD-R1) / SP) X 100
- RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100
- Acceptance Limits** RPD: < or = 20%
- MS/MSD: 75-125%

QC Criteria: The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
INSTRUMENT: ICP
MATRIX: Soil

DATE: 5/10/99

Analyte	St	R1	PR
	ppm	ppm	%
Antimony	50.0	47.6	95%
Copper	50.0	47.3	95%

 **Definition of Terms:**

- St.**..... Standard Concentration
- R1.**..... Standard Result
- PR.**..... Percent Recovery of R1; $(R1/St) \times 100$
- Acceptance Limits** LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)





MS/MSD DATA REPORT

EPA Method: 7471A
 Matrix: Soil
 Instrument: N/A

Date: 05/06/99
 Sample #: PIE00108
 Batch #: IE06HG1S

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppm	ppm	ppm	ppm	%	%	%	RPD	PR1/PR2
								%	%
Mercury	0	0.333	0.340	0.343	102%	103%	1%	≤ 20	85-115%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC was within acceptance limits.



May 18, 1999

Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, Arizona 85044
Attn: Robyn Rice

Report of Laboratory Results: ARF number: 30209

Dear Ms. Rice:

Six water samples for Project Number 'PIE00103.QST' were received May 06, 1999, in good condition. Written results are being provided on this May 18, 1999, for the requested analyses. All holding times were met. No unusual problems or complications were encountered with this sample set.

Sample Table

Sample Description	Del Mar ID	APPL Inc. ID	Sample Date
Water	PIE00103	78596w	05/04/99
Water	PIE00104	78597w	05/04/99
Water	PIE00105	78598w	05/04/99
Water	PIE00106	78599w	05/04/99
Water	PIE00107	78600w	05/04/99
Water	PIE00108	78601w	05/04/99

If you have any questions or require further information, please contact us at your convenience. Thank you for choosing APPL, Inc.

Sincerely,

Mike Ray, Laboratory Director
APPL, Inc.

MR/mr
Enclosure
cc: File

EPA 8141

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00103.QST

Sample ID: PIE00103

Sample Collection Date: 5/4/99

ARF: 30209

APPL ID AP78596

QCG: \$8141W-990507A-16505

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	5.0	ug/L	5/7/99	5/11/99
EPA 8141	Bolstar	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Chlorpyrifos	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Coumaphos	Not detected	1.0	ug/L	5/7/99	5/11/99
EPA 8141	Def	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Demeton-s	Not detected	1.0	ug/L	5/7/99	5/11/99
EPA 8141	Diazinon	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Dichlorvos	Not detected	1.0	ug/L	5/7/99	5/11/99
EPA 8141	Dimethoate	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Disulfoton	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	EPN	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Ethion	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Ethoprop	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Fensulfothion	Not detected	2.5	ug/L	5/7/99	5/11/99
EPA 8141	Fenthion	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Malathion	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Merphos	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Mevinphos	Not detected	3.5	ug/L	5/7/99	5/11/99
EPA 8141	Naled	Not detected	2.5	ug/L	5/7/99	5/11/99
EPA 8141	Parathion, ethyl	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Parathion, methyl	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Phorate	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Prowl	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Ronnel	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Stirophos	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Sulfotep	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Tepp	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Tokuthion	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Trichloronate	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Trifluralin	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Surrogate: Tributylphosphate	95.0	60-150	%	5/7/99	5/11/99
EPA 8141	Surrogate: Triphenylphosphate	83.3	76-140	%	5/7/99	5/11/99

Run #: 510035
Instrument: NPD03
Sequence: 990510
Dilution Factor: 1
Initials: FML

Printed: 5/18/99 1:16:46 PM

EPA 8141

Del Mar Analytical
330 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00103.QST

Sample ID: PIE00104

Sample Collection Date: 5/4/99

ARF: 30209

APPL ID AP78597

QCG: \$8141W-990507A-16505

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	5.0	ug/L	5/7/99	5/11/99
EPA 8141	Boistar	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Chlorpyrifos	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Coumaphos	Not detected	1.0	ug/L	5/7/99	5/11/99
EPA 8141	Def	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Demeton-s	Not detected	1.0	ug/L	5/7/99	5/11/99
EPA 8141	Diazinon	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Dichlorvos	Not detected	1.0	ug/L	5/7/99	5/11/99
EPA 8141	Dimethoate	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Disulfoton	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	EPN	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Ethion	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Ethoprop	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Fensulfothion	Not detected	2.5	ug/L	5/7/99	5/11/99
EPA 8141	Fenthion	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Malathion	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Merphos	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Mevinphos	Not detected	3.5	ug/L	5/7/99	5/11/99
EPA 8141	Naled	Not detected	2.5	ug/L	5/7/99	5/11/99
EPA 8141	Parathion, ethyl	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Parathion, methyl	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Phorate	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Prowl	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Ronnel	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Stirophos	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Sulfotep	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Tepp	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Tokuthion	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Trichloronate	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Trifluralin	Not detected	0.50	ug/L	5/7/99	5/11/99
EPA 8141	Surrogate: Tributylphosphate	98.1	60-150	%	5/7/99	5/11/99
EPA 8141	Surrogate: Triphenylphosphate	93.9	76-140	%	5/7/99	5/11/99

Run #: 510041
Instrument: NPD03
Sequence: 990510
Dilution Factor: 1
Initials: FML

Printed: 5/18/99 1:16:46 PM

EPA 8141 OP Pesticides

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00103.QST

Sample ID: PIE00105

Sample Collection Date: 5/3/99

ARF: 30209

APPL ID AP78598

QCG: \$8141S-990510AS-16517

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/10/99	5/12/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Def	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/10/99	5/12/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/10/99	5/12/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/10/99	5/12/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Surrogate: Tributylphosphate	102	51-154	%	5/10/99	5/12/99
EPA 8141	Surrogate: Triphenylphosphate	104	63-151	%	5/10/99	5/12/99

Run #: 510084,100
Instrument: NPD03
Sequence: 990510
Dilution Factor: 1,2
Initials: FML

Printed: 5/18/99 1:16:47 PM

EPA 8141 OP Pesticides

Del Mar Analytical
830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00103.QST

Sample ID: PIE00106

Sample Collection Date: 5/4/99

ARF: 30209

APPL ID AP78599

QCG: \$8141S-990510AS-16517

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/10/99	5/12/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Def	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/10/99	5/12/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/10/99	5/12/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/10/99	5/12/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Surrogate: Tributylphosphate	115	51-154	%	5/10/99	5/12/99
EPA 8141	Surrogate: Triphenylphosphate	120	63-151	%	5/10/99	5/12/99

Run #: 510085,101
Instrument: NPD03
Sequence: 990510
Dilution Factor: 1,2
Initials: FML

Printed: 5/18/99 1:16:47 PM

EPA 8141 OP Pesticides

Del Mar Analytical
830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00103.QST

Sample ID: PIE00107

Sample Collection Date: 5/4/99

ARF: 30209

APPL ID AP78600

QCG: \$8141S-990510AS-16517

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/10/99	5/12/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Def	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/10/99	5/12/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/10/99	5/12/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/10/99	5/12/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Surrogate: Tributylphosphate	102	51-154	%	5/10/99	5/12/99
EPA 8141	Surrogate: Triphenylphosphate	108	63-151	%	5/10/99	5/12/99

Run #: 510086,102
Instrument: NPD03
Sequence: 990510
Dilution Factor: 1,2
Initials: FML

Printed: 5/18/99 1:16:47 PM

EPA 8141 OP Pesticides

Del Mar Analytical
830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00103.QST

Sample ID: PIE00108

Sample Collection Date: 5/3/99

ARF: 30209

APPL ID AP78601

QCG: \$8141S-990510AS-16517

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/10/99	5/12/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Def	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/10/99	5/12/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/10/99	5/12/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/10/99	5/12/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Surrogate: Tributylphosphate	103	51-154	%	5/10/99	5/12/99
EPA 8141	Surrogate: Triphenylphosphate	104	63-151	%	5/10/99	5/12/99

Run #: 510087,105
Instrument: NPD03
Sequence: 990510
Dilution Factor: 1,2
Initials: FML

Printed: 5/18/99 1:16:47 PM

EPA 8151 Herbicides

Del Mar Analytical
830 South 51st. St., Ste B-120
Phoenix, AZ 85044

Attn: Jaime Wood
Project: PIE00103.QST
Sample ID: PIE00103
Sample Collection Date: 5/4/99

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

ARF: 30209
APPL ID AP78596
QCG: \$8151-990510WA-16566

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	0.50	ug/L	5/10/99	5/13/99
EPA 8151	Dalapon	Not detected	1.0	ug/L	5/10/99	5/13/99
EPA 8151	2,4-DB	Not detected	1.0	ug/L	5/10/99	5/13/99
EPA 8151	Dicamba	Not detected	0.10	ug/L	5/10/99	5/13/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/10/99	5/13/99
EPA 8151	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/10/99	5/13/99
EPA 8151	MCPA	Not detected	100	ug/L	5/10/99	5/13/99
EPA 8151	MCPP	Not detected	100	ug/L	5/10/99	5/13/99
EPA 8151	2,4,5-T	Not detected	0.10	ug/L	5/10/99	5/13/99
EPA 8151	2,4,5-TP	Not detected	0.10	ug/L	5/10/99	5/13/99
EPA 8151	Surrogate Recovery	78.7	61-120	%	5/10/99	5/13/99

Run #: 95
Instrument: ECD01
Sequence: 990510
Dilution Factor: 1
Initials: KW

Printed: 5/17/99 9:25:15 AM

EPA 8151 Herbicides

Del Mar Analytical
830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Jaime Wood
Project: PIE00103.QST
Sample ID: PIE00104
Sample Collection Date: 5/4/99

ARF: 30209
APPL ID AP78597
QCG: \$8151-990510WA-16566

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	0.50	ug/L	5/10/99	5/13/99
EPA 8151	Dalapon	Not detected	1.0	ug/L	5/10/99	5/13/99
EPA 8151	2,4-DB	Not detected	1.0	ug/L	5/10/99	5/13/99
EPA 8151	Dicamba	Not detected	0.10	ug/L	5/10/99	5/13/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/10/99	5/13/99
EPA 8151	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/10/99	5/13/99
EPA 8151	MCPA	Not detected	100	ug/L	5/10/99	5/13/99
EPA 8151	MCPP	Not detected	100	ug/L	5/10/99	5/13/99
EPA 8151	2,4,5-T	Not detected	0.10	ug/L	5/10/99	5/13/99
EPA 8151	2,4,5-TP	Not detected	0.10	ug/L	5/10/99	5/13/99
EPA 8151	Surrogate Recovery	90.4	61-120	%	5/10/99	5/13/99

Run #: 96
Instrument: ECD01
Sequence: 990510
Dilution Factor: 1
Initials: KW

Printed: 5/17/99 9:25:15 AM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

Attn: Robyn Rice
Project: PIE00103.QST

Sample ID: PIE00105
Sample Collection Date: 5/3/99

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

ARF: 30209
APPL ID AP78598
QCG: \$8151S-990513SA-16619

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/13/99	5/18/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/18/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Surrogate recovery	115	93-141	%	5/13/99	5/18/99

Run #: 22
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 12:28:43 PM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
3830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice
Project: PIE00103.QST
Sample ID: PIE00106
Sample Collection Date: 5/4/99

ARF: 30209
APPL ID AP78599
QCG: \$8151S-990513SA-16619

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/13/99	5/18/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/18/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Surrogate recovery	108	93-141	%	5/13/99	5/18/99

Run #: 24
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 12:28:44 PM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
3830 South 51st. St., Ste B-120
Phoenix, AZ 85044

Attn: Robyn Rice
Project: PIE00103.QST
Sample ID: PIE00107
Sample Collection Date: 5/4/99

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

ARF: 30209
APPL ID AP78600
QCG: \$8151S-990513SA-16619

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/13/99	5/18/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/18/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Surrogate recovery	113	93-141	%	5/13/99	5/18/99

Run #: 25
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 12:28:44 PM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice
Project: PIE00103.QST
Sample ID: PIE00108
Sample Collection Date: 5/3/99

ARF: 30209
APPL ID AP78601
QCG: \$8151S-990513SA-16619

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/13/99	5/18/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/18/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Surrogate recovery	114	93-141	%	5/13/99	5/18/99

Run #: 26
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 12:28:44 PM

Method Blank

EPA 8141 OP Pesticides

Blank Name/QCG: 990510S - 16517
 Batch ID: \$8141S-990510AS

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	Azinphosmethyl	Not detected	500	ug/kg	5/10/99	5/12/99
BLANK	Bolstar	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Chlorpyrifos	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Coumaphos	Not detected	100	ug/kg	5/10/99	5/12/99
BLANK	Def	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Demeton-s	Not detected	100	ug/kg	5/10/99	5/12/99
BLANK	Diazinon	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Dichlorvos	Not detected	100	ug/kg	5/10/99	5/12/99
BLANK	Dimethoate	Not detected	100	ug/kg	5/10/99	5/12/99
BLANK	Disulfoton	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	EPN	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Ethion	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Ethoprop	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Fensulfothion	Not detected	250	ug/kg	5/10/99	5/12/99
BLANK	Fenthion	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Malathion	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Merphos	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Mevinphos	Not detected	350	ug/kg	5/10/99	5/12/99
BLANK	Naled	Not detected	250	ug/kg	5/10/99	5/12/99
BLANK	Parathion, ethyl	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Parathion, methyl	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Phorate	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Prowl	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Ronnel	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Stirophos	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Sulfotep	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	TEPP	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Tokuthion	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Trichloronate	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Trifluralin	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Surrogate: Tributylphosphate	96.9	51-154	%	5/10/99	5/12/99
BLANK	Surrogate: Triphenylphosphate	98.9	63-151	%	5/10/99	5/12/99

Run #: 510080
Instrument: NPD03
Sequence: 990510
Initials: FML

Laboratory Control Spike - LCS

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: 990510AS LCS
Date/Initials: 5/13/99 FML
Extraction Date: 5/10/99
Matrix Type: SOIL
Units: ug/kg

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Phorate	83.3	*****	65.9	79.0
Diazinon	83.3	*****	90.3	108
Disulfoton	83.3	*****	79.3	95.1
Methyl parathion	83.3	*****	82.9	99.5
Stirophos	83.3	*****	94.5	113
Ethion	83.3	*****	70.2	84.3

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Tributyl phosphate	167	*****	169	101
Triphenyl phosphat	167	*****	173	104

	Prim Col Spike	Sec Col Spike
Analysis Date:	5/12/99	
Analysis Time:	3:48 PM	
Instrument:	NPD03B	
Column:	DB-5	
Sample/Vial #:	81	
Extraction Ratio:	10/30	
Dilution Factor:	1	

Comments:

	Soil	Water
Phorate	26-98	22-96
Diazinon	61-139	57-130
Disulfoton	14-131	47-117
Meth Parathion	63-153	55-164
Stirophos	58-140	68-128
Ethion	66-131	65-134
Tributyl phosphate	51-154	60-150
Triphenyl phosphate	63-151	76-140

Matrix / Control Spike Recoveries

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: **78684S MS/MSD**
Date/Initials: 5/13/99 FML
Extraction Date: 5/10/99
Matrix Type: SOIL
Units: ug/kg

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery	%RPD (See below)
Phorate	83.3	0.000	59.6	71.5	59.5	71.4	0.1
Diazinon	83.3	0.000	83.6	100	83.5	100	0.2
Disulfoton	83.3	0.000	68.2	81.8	70.6	84.7	3.5
Methyl parathion	83.3	0.000	75.3	90.4	74.6	89.5	1.0
Stirophos	83.3	0.000	86.6	104	87.1	104	0.5
Ethion	83.3	0.000	63.5	76.2	62.6	75.2	1.3

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery
Tributyl phosphate	167	*****	154	92.5	151	90.8
Triphenyl phosphatate	167	*****	158	94.9	157	94.1

	Primary Column		Secondary Column	
	Spike	Spk Dup	Spike	Spk Dup
Analysis Date:	5/12/99	5/12/99		
Analysis Time:	4:25 PM	5:02 PM		
Instrument:	NPD03B	NPD03B		
Column:	DB-5	DB-5		
Sample/Vial #:	82	83		
Extraction Ratio:	10/30	10/30		
Dilution Factor:	1	1		

Comments:

	Soil	Water	Soil RPD	Water RPD
Phorate	26-98	22-96	21	24
Diazinon	61-139	57-130	24	21
Disulfoton	14-131	47-117	26	22
Meth Parathion	63-153	55-164	19	24
Stirophos	58-140	68-128	21	25
Ethion	66-131	65-134	36	20
Tributyl phosphate	51-154	60-150	NA	NA
Triphenyl phosphate	63-151	76-140	NA	NA

Method Blank

EPA 8141

Blank Name/QCG: 990507W - 16505
 Batch ID: \$8141W-990507A

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	Azinphosmethyl	Not detected	5.0	ug/L	5/7/99	5/11/99
BLANK	Bolstar	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Chlorpyrifos	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Coumaphos	Not detected	1.0	ug/L	5/7/99	5/11/99
BLANK	Def	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Demeton-s	Not detected	1.0	ug/L	5/7/99	5/11/99
BLANK	Diazinon	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Dichlorvos	Not detected	1.0	ug/L	5/7/99	5/11/99
BLANK	Dimethoate	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Disulfoton	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	EPN	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Ethion	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Ethoprop	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Fensulfothion	Not detected	2.5	ug/L	5/7/99	5/11/99
BLANK	Fenthion	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Malathion	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Merphos	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Mevinphos	Not detected	3.5	ug/L	5/7/99	5/11/99
BLANK	Naled	Not detected	2.5	ug/L	5/7/99	5/11/99
BLANK	Parathion, ethyl	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Parathion, methyl	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Phorate	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Prowl	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Ronnel	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Stirophos	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Sulfotep	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Tepp	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Tokuthion	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Trichloronate	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Trifluralin	Not detected	0.50	ug/L	5/7/99	5/11/99
BLANK	Surrogate: Tributylphosphate	69.9	60-150	%	5/7/99	5/11/99
BLANK	Surrogate: Triphenylphosphate	84.9	76-140	%	5/7/99	5/11/99

Run #: 510026
Instrument: NPD03
Sequence: 990510
Initials: FML

Matrix / Control Spike Recoveries

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: **990507AW LCS/LCSD**
Date/Initials: 5/11/99 FML
Extraction Date: 5/7/99
Matrix Type: Water
Units: ug/L

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery	%RPD (See below)
Phorate	2.50	0.00	1.39	55.6	1.42	56.8	2.1
Diazinon	2.50	0.00	2.40	96.0	2.40	95.8	0.2
Disulfoton	2.50	0.00	1.84	73.6	1.75	70.1	5.0
Methyl parathion	2.50	0.00	1.97	78.7	1.96	78.5	0.3
Stirophos	2.50	0.00	1.99	79.6	2.03	81.3	2.1
Ethion	2.50	0.00	1.82	72.8	1.82	72.8	0.1

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery
Tributyl phosphate	5.00	*****	3.55	71.0	3.67	73.3
Triphenyl phosphate	5.00	*****	4.25	84.9	4.37	87.4

	Primary Column	
	Spike	Spk Dup
Analysis Date:	5/11/99	5/11/99
Analysis Time:	6:12 AM	6:49 AM
Instrument:	NPD03B	NPD03B
Column:	DB-5	DB-5
Sample/Vial #:	27	28
Extraction Ratio:	10/1000	10/1000
Dilution Factor:	1	1

Secondary Column	
Spike	Spk Dup

Comments:

	Soil	Water	Soil RPD	Water RPD
Phorate	26-98	22-96	21	24
Diazinon	61-139	57-130	24	21
Disulfoton	14-131	47-117	26	22
Meth Parathion	63-153	55-164	19	24
Stirophos	58-140	68-128	21	25
Ethion	66-131	65-134	36	20
Tributyl phosphate	51-154	60-150	NA	NA
Triphenyl phosphate	63-151	76-140	NA	NA

Laboratory Control Spike Recoveries
EPA 8151 Herbicides

APPL ID 990510W-78596 LCS/LCSD - 16566

Batch ID: \$8151-990510WA

APPL Inc.

4203 West Swift Avenue

Fresno, CA 93722

Compound Name	Spike Level ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	1.00	0.935	0.953	93.5	95.3	53-134	1.9	32
2,4,5-TP	1.00	0.888	0.896	88.8	89.6	60-118	0.90	24
2,4-D	1.00	1.11	1.15	111	115	44-155	3.5	15
Dicamba	1.00	1.00	1.02	100	102	48-102	2.0	24
Dichlorprop (2,4-DP)	1.00	0.967	0.992	96.7	99.2	37-146	2.6	18
Dinoseb (DNBP)	1.00	0.865	0.880	86.5	88.0	73-173	1.7	31
Surrogate: 2,4-DCAA	3.00	3.04	3.09	101	103	61-120		

Comments: _____

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Extraction Date :	5/10/99	5/10/99
Analysis Date :	5/13/99	5/13/99
Instrument :	ECD01	ECD01
Run :	93	94
Analyst :	KW	

Method Blank
EPA 8151 HERBICIDE SOIL

Blank Name/QCG: 990513S - 16619
Batch ID: \$8151S-990513SA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	2,4-D	Not detected	200	ug/kg	5/13/99	5/17/99
BLANK	Dalapon	Not detected	2000	ug/kg	5/13/99	5/17/99
BLANK	2,4-DB	Not detected	400	ug/kg	5/13/99	5/17/99
BLANK	Dicamba	Not detected	40	ug/kg	5/13/99	5/17/99
BLANK	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/17/99
BLANK	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/17/99
BLANK	MCPA	Not detected	40000	ug/kg	5/13/99	5/17/99
BLANK	MCPP	Not detected	40000	ug/kg	5/13/99	5/17/99
BLANK	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/17/99
BLANK	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/17/99
BLANK	Surrogate recovery	106	93-141	%	5/13/99	5/17/99

Run #: 11
Instrument: ECD01
Sequence: 990517
Initials: KW

Printed: 5/19/99 12:29:15 PM

Laboratory Control Spike Recovery
EPA 8151 HERBICIDE SOIL

APPL ID: 990513S-78683 LCS - 16619

Batch ID: \$8151S-990513SA

APPL Inc.

4203 West Swift Avenue

Fresno, CA 93722

Compound Name	Spike Level ug/kg	SPK Result ug/kg	SPK % Recovery	Recovery Limits
2,4,5-T	200	195	97.5	77-148
2,4,5-TP	200	189	94.5	87-149
2,4-D	200	222	111	90-181
Dicamba	200	191	95.5	63-149
Dichlorprop (2,4-DP)	200	201	101	91-183
Dinoseb (DNBP)	200	195	97.5	71-167
Surrogate recovery	600	641	107	93-141

Comments:

Primary	SPK
Extraction Date :	5/13/99
Analysis Date :	5/17/99
Instrument :	ECD01
Run :	12
Analyst :	KW

Printed: 5/19/99 12:29:52 PM

Matrix Spike Recoveries

EPA 8151 HERBICIDE SOIL

APPL ID 990513S-78683 MS/MSD - 16619
 Batch ID: \$8151S-990513SA

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Compound Name	Spike Level ug/kg	Matrix Result ug/kg	SPK Result ug/kg	DUP Result ug/kg	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	200	ND	213	209	107	105	77-148	1.9	27
2,4,5-TP	200	ND	202	200	101	100	87-149	1.00	27
2,4-D	200	ND	251	247	126	124	90-181	1.6	27
Dicamba	200	ND	226	225	113	113	63-149	0.44	31
Dichlorprop (2,4-DP)	200	ND	213	210	107	105	91-183	1.4	37
Dinoseb (DNBP)	200	ND	267	253	134	127	71-167	5.4	NE
Surrogate recovery	600	NA	683	676	114	113	93-141		

NE = Not established.

Comments: _____

Primary	SPK	DUP
Extraction Date :	5/13/99	5/13/99
Analysis Date :	5/17/99	5/17/99
Instrument :	ECD01	ECD01
Run :	13	14
Analyst :	KW	

CHAIN OF CUSTODY FORM

Quote #: _____ Page 1 of _____

Client Name/Address:		Project/PO Number:		Analysis Required												Special Instructions					
QST ENVIRONMENTAL, INC. 426 N. 44TH ST., SUITE 110 PHOENIX, AZ. 85008		669 9030 ESTES LANDFILL		VOC	SVOC	METALS	INORGANIC AMMONIUM	PESTICIDES	PCB	ORGANOPHOSPHORUS	ORGANIC PESTICIDES	CHLORINATED	HEAVY METALS	/							
Project Manager:		Phone Number:		Sample Description	Sample Matrix	Container Type	# of Cqnt.	Sampling Date/Time	Preservatives	VOC	SVOC	METALS	INORGANIC AMMONIUM	PESTICIDES	PCB	ORGANOPHOSPHORUS	ORGANIC PESTICIDES	CHLORINATED	HEAVY METALS	Special Instructions	
JOHN MIEHER		(602) 244-1192																			
Sampler:		Fax Number:																			
MATTHEW E GARLICK PATRICIA A DROBAT		(602) 244-1192																			
QST-B2-(6/17/99)-(5/4/99)		AQ	Glass/ POLY	3	5-4-99 0941	metals HNO ₃ VOC-HCl	2	2	1	2	2	2	2	2							CHILL 4°C
QST-B3-(6/17/99)-(5/4/99)		AQ	Glass/ POLY	13	5-4-99 1020	metals HNO ₃ VOC-HCl	2	2	1	2	2	2	2	2							CHILL 4°C
QST-B2-(5/8)-(2/3/99)		SOIL		2	5-3-99 1518		1	X	X	X	X	X	X	X							
QST-B2-(5/6/99)-(5/4/99)		SOIL		3	5-4-99 0850		1	X	X	X	X	X	X	X							
QST-B3-(5/15)-(5/4/99)		SOIL		2	5-4-99 0915		1	X	X	X	X	X	X	X							
QST-B3-(5/4/99)-(5/3/99)		SOIL		2	5-3-99 1634		1	X	X	X	X	X	X	X							

Relinquished By: JEFF MASTEN	Date /Time: 5-4-99 10:00	Received by: [Signature]	Date /Time: 5-4-99 11:00	Turnaround Time: (Check) <u>Block</u> same day _____ 72 hours _____ 24 hours _____ 5 days _____ 48 hours _____ normal _____
Relinquished By: [Signature]	Date /Time: 5-4-99 11:00	Received by: [Signature]	Date /Time: 5-4-99 11:00	
Relinquished By: [Signature]	Date /Time: 5-4-99 11:00	Received In Lab by: [Signature]	Date /Time: 5-4-99 11:00	

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite #05, San Diego, CA 92123 (619) 505-9586 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Report Number: PIF00606

Sampled: May 3-11, 1999
 Relogged: Jun 11, 1999
 Extracted: May 5-21, 1999
 Analyzed: May 6-23, 1999
 Reported: Jun 24, 1999

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PIF00606	QST-B2-(GW/73)-(5/4/99)	Water	200.7
PIF00607	QST-B3-(GW/78)-(5/4/99)	Water	200.7
PIF00608	QST-B2-(S/8)-(5/3/99)	Soil	6010B
PIF00609	QST-B2-(S/65)-(5/4/99)	Soil	6010B
PIF00610	QST-B3-(S/75)-(5/4/99)	Soil	6010B
PIF00611	QST-B3-(S/45)-(5/3/99)	Soil	6010B
PIF00612	QST-B1-(GW/70)-(5/5/99)	Water	200.7
PIF00613	QST-B1-(S/37.5)-(5/5/99)	Soil	6010B
PIF00614	QST-B1-(S/54)-(5/5/99)	Soil	6010B
PIF00615	QST-B4-(S/35)-(5/4/99)	Soil	6010B
PIF00616	QST-B4-(S/49)-(5/4/99)	Soil	6010B
PIF00617	QST-B4-(GW/78)-(5/5/99)	Water	200.7
PIF00618	QST-B5-(S/20)-(5/5/99)	Soil	6010B
PIF00619	QST-B5-(S/43)-(5/5/99)	Soil	6010B
PIF00620	QST-B6-(S/36)-(5/6/99)	Soil	6010B
PIF00621	QST-B6-(S/55)-(5/6/99)	Soil	6010B
PIF00622	QST-B6-(GW/70)-(5/6/99)	Water	200.7
PIF00623	QST-B5-(GW/60)-(5/6/99)	Water	200.7
PIF00624	QST-B14-(GW/80)-(5/6/99)	Water	200.7
PIF00625	QST-B15-(GW/85)-(5/6/99)	Water	200.7

DEL MAR ANALYTICAL, PHOENIX (AZ0426)


 Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite #05, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Report Number: PIF00626

Sampled: May 3-11, 1999
 Relogged: Jun 11, 1999
 Extracted: May 5-21, 1999
 Analyzed: May 6-23, 1999
 Reported: Jun 24, 1999

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PIF00626	OST-B14-(S/50)-(5/6/99)	Soil	6010B
PIF00627	OST-B14-(S/76)-(5/6/99)	Soil	6010B
PIF00628	OST-B15-(S/39)-(5/6/99)	Soil	6010B
PIF00629	OST-B15-(S/66)-(5/6/99)	Soil	6010B
PIF00630	OST-B17-(GW/80)-(5/7/99)	Water	200.7
PIF00631	OST-B27-(GW/80)-(5/7/99)	Water	200.7
PIF00632	OST-B17-(S/15)-(5/7/99)	Soil	6010B
PIF00633	OST-B17-(S/65)-(5/7/99)	Soil	6010B
PIF00634	OST-B16-(S/26)-(5/7/99)	Soil	6010B
PIF00635	OST-B16-(S/30)-(5/7/99)	Soil	6010B
PIF00636	OST-B16-(S/75)-(5/7/99)	Soil	6010B
PIF00637	OST-B16-(GW/80)-(5/7/99)	Water	200.7
PIF00638	OST-B18-(S/40)-(5/10/99)	Soil	6010B
PIF00639	OST-B18-(S/70)-(5/10/99)	Soil	6010B
PIF00640	OST-B18-(GW/85)-(5/10/99)	Water	200.7
PIF00641	OST-B18-(S/40)-(5/10/99)	Soil	6010B
PIF00642	OST-B19-(GW/80)-(5/10/99)	Water	200.7
PIF00643	OST-B20-(GW/80)-(5/11/99)	Water	200.7
PIF00644	OST-B31-(GW/80)-(5/11/99)	Water	200.7
PIF00645	OST-B30-(GW/80)-(5/11/99)	Water	200.7

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92608 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1844
 6484 Chesapeake Dr., Suite 305, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9680
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 795-0043 FAX (480) 795-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Soil, QST-B20-(S/64)-(5/11/9)
 Report Number: PIF00646

Sampled: May 3-11, 1999
 Relogged: Jun 11, 1999
 Extracted: May 5-21, 1999
 Analyzed: May 6-23, 1999
 Reported: Jun 24, 1999

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PIF00646	QST-B20-(S/64)-(5/11/99)	Soil	6010B
PIF00647	QST-B20-(S/25)-(5/11/99)	Soil	6010B
PIF00648	QST-B40-(GW/80)-(5/11/99)	Water	200.7
PIF00649	QST-B21-(S/20)-(5/11/99)	Soil	6010B

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.
 HOLDING TIMES: Holding times were met.
 PRESERVATION: Samples requiring preservation were verified prior to sample analysis.
 PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.
 QA/QC CRITERIA: All Analyses met method criteria.
 OBSERVATIONS: No significant observations were made.
 SUBCONTRACTED: No analyses were subcontracted to an outside laboratory.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)


 Robyn Rice
 Project Manager

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water
 First Sample #: PIF00606

Sampled: May 4, 1999
 Relogged: Jun 11, 1999
 Extracted: May 5, 1999
 Analyzed: May 6, 1999
 Reported: Jun 24, 1999

TOTAL RECOVERABLE BARIUM (EPA 200.7)

Laboratory Number	Sample Description	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
PIF00606	QST-B2-(GW/73)- (5/4/99)	0.010	1.1	05/05/99	05/06/99
PIF00607	QST-B3-(GW/78)- (5/4/99)	0.010	0.70	05/05/99	05/06/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Conlay Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-0689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water
 First Sample #: PIF00612

Sampled: May 5, 1999
 Relogged: Jun 11, 1999
 Extracted: May 6, 1999
 Analyzed: May 7, 1999
 Reported: Jun 24, 1999

TOTAL RECOVERABLE BARIUM (EPA 200.7)

Laboratory Number	Sample Description	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
PIF00612	QST-B1-(GW/70)- (5/5/99)	0.010	0.54	05/06/99	05/07/99
PIF00617	QST-B4-(GW/78)- (5/5/99)	0.010	0.74	05/06/99	05/07/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

R.R.

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-8667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite #05, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water
 First Sample #: PIF00622

Sampled: May 6, 1999
 Relogged: Jun 11, 1999
 Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: Jun 24, 1999

TOTAL RECOVERABLE BARIUM (EPA 200.7)

Laboratory Number	Sample Description	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
PIF00622	QST-B6-(GW/70)- (5/6/99)	0.010	1.9	05/10/99	05/11/99
PIF00623	QST-B5-(GW/60)- (5/6/99)	0.010	1.1	05/10/99	05/11/99
PIF00624	QST-B14-(GW/80)- (5/6/99)	0.010	3.9	05/10/99	05/11/99
PIF00625	QST-B15-(GW/85)- (5/6/99)	0.010	16	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92608 (949) 261-1022 FAX (949) 261-1228
 1014 E. Coley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water
 First Sample #: PIF00630

Sampled: May 7, 1999
 Relogged: Jun 11, 1999
 Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: Jun 24, 1999

TOTAL RECOVERABLE BARIUM (EPA 200.7)

Laboratory Number	Sample Description	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
PIF00630	QST-B17-(GW/80)- (5/7/99)	0.010	0.68	05/10/99	05/11/99
PIF00631	QST-B27-(GW/80)- (5/7/99)	0.010	0.69	05/10/99	05/11/99
PIF00637	QST-B16-(GW/80)- (5/7/99)	0.010	5.7	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1028
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9404 Chesapeake Dr., Suite 305, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water
 First Sample #: PIF00640

Sampled: May 10, 1999
 Relogged: Jun 11, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: Jun 24, 1999

TOTAL RECOVERABLE BARIUM (EPA 200.7)

Laboratory Number	Sample Description	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
PIF00640	QST-B18-(GW/85)- (5/10/99)	0.010	9.4	05/11/99	05/12/99
PIF00642	QST-B19-(GW/80)- (5/10/99)	0.010	8.4	05/11/99	05/12/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



2852 Allan Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4867 FAX (909) 370-1046
 18525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water
 First Sample #: PIF00643

Sampled: May 11, 1999
 Relogged: Jun 11, 1999
 Extracted: May 13, 1999
 Analyzed: May 14, 1999
 Reported: Jun 24, 1999

TOTAL RECOVERABLE BARIUM (EPA 200.7)

Laboratory Number	Sample Description	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
PIF00643	QST-B20-(GW/80)- (5/11/99)	0.010	9.2	05/13/99	05/14/99
PIF00644	QST-B31-(GW/80)- (5/11/99)	0.010	11	05/13/99	05/14/99
PIF00645	QST-B30-(GW/80)- (5/11/99)	0.010	N.D.	05/13/99	05/14/99
PIF00648	QST-B40-(GW/80)- (5/11/99)	0.010	N.D.	05/13/99	05/14/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water
 First Sample #: PIF00606

Sampled: May 4, 1999
 Relogged: Jun 11, 1999
 Extracted: May 5, 1999
 Analyzed: May 6, 1999
 Reported: Jun 24, 1999

TOTAL RECOVERABLE MANGANESE (EPA 200.7)

Laboratory Number	Sample Description	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
PIF00606	QST-B2-(GW/73)- (5/4/99)	0.050	9.8	05/05/99	05/06/99
PIF00607	QST-B3-(GW/78)- (5/4/99)	0.050	4.8	05/05/99	05/06/99

Analytes reported as N.D. were not present at or above the reporting limit.



Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Coolby Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

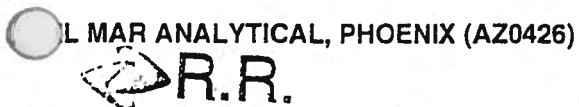
Sample Descript: Water
 First Sample #: PIF00612

Sampled: May 5, 1999
 Relogged: Jun 11, 1999
 Extracted: May 6, 1999
 Analyzed: May 7, 1999
 Reported: Jun 24, 1999

TOTAL RECOVERABLE MANGANESE (EPA 200.7)

Laboratory Number	Sample Description	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
PIF00612	QST-B1-(GW/70)- (5/5/99)	0.050	4.2	05/06/99	05/07/99
PIF00617	QST-B4-(GW/78)- (5/5/99)	0.050	4.8	05/06/99	05/07/99

Analytes reported as N.D. were not present at or above the reporting limit.



Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 795-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water
 First Sample #: PIF00622

Sampled: May 6, 1999
 Relogged: Jun 11, 1999
 Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: Jun 24, 1999

TOTAL RECOVERABLE MANGANESE (EPA 200.7)

Laboratory Number	Sample Description	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
PIF00622	QST-B6-(GW/70)- (5/6/99)	0.050	11	05/10/99	05/11/99
PIF00623	QST-B5-(GW/60)- (5/6/99)	0.050	6.0	05/10/99	05/11/99
PIF00624	QST-B14-(GW/80)- (5/6/99)	0.050	4.3	05/10/99	05/11/99
PIF00625	QST-B15-(GW/85)- (5/6/99)	0.050	23	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-0667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 770-1844 FAX (818) 770-1843
 9484 Chesapeake Dr., Suite 305, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water
 First Sample #: PIF00630

Sampled: May 7, 1999
 Relogged: Jun 11, 1999
 Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: Jun 24, 1999

TOTAL RECOVERABLE MANGANESE (EPA 200.7)

Laboratory Number	Sample Description	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
PIF00630	QST-B17-(GW/80)- (5/7/99)	0.050	3.2	05/10/99	05/11/99
PIF00631	QST-B27-(GW/80)- (5/7/99)	0.050	3.4	05/10/99	05/11/99
PIF00637	QST-B16-(GW/80)- (5/7/99)	0.050	14	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



Del Mar Analytical

3852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4687 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9506 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 795-0043 FAX (480) 795-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water
 First Sample #: PIF00640

Sampled: May 10, 1999
 Relogged: Jun 11, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: Jun 24, 1999

TOTAL RECOVERABLE MANGANESE (EPA 200.7)

Laboratory Number	Sample Description	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
PIF00640	QST-B18-(GW/85)- (5/10/99)	0.050	47	05/11/99	05/12/99
PIF00642	QST-B19-(GW/80)- (5/10/99)	0.050	26	05/11/99	05/12/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 405, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water
 First Sample #: PIF00643

Sampled: May 11, 1999
 Relogged: Jun 11, 1999
 Extracted: May 13, 1999
 Analyzed: May 14, 1999
 Reported: Jun 24, 1999

TOTAL RECOVERABLE MANGANESE (EPA 200.7)

Laboratory Number	Sample Description	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
PIF00643	QST-B20-(GW/80)- (5/11/99)	0.050	17	05/13/99	05/14/99
PIF00644	QST-B31-(GW/80)- (5/11/99)	0.050	21	05/13/99	05/14/99
PIF00645	QST-B30-(GW/80)- (5/11/99)	0.050	N.D.	05/13/99	05/14/99
PIF00648	QST-B40-(GW/80)- (5/11/99)	0.050	N.D.	05/13/99	05/14/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

R.R.

Robyn Rice
 Project Manager



Del Mar Analytical

3852 Allen Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 10525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil
 First Sample #: PIF00608

Sampled: May 3, 1999
 Relogged: Jun 11, 1999
 Extracted: May 7, 1999
 Analyzed: May 10, 1999
 Reported: Jun 24, 1999

TOTAL BARIUM (EPA 6010B)

Laboratory Number	Sample Description	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
PIF00608	QST-B2-(S/8)- (5/3/99)	1.0	76	05/07/99	05/10/99
PIF00611	QST-B3-(S/45)- (5/3/99)	1.0	170	05/07/99	05/10/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

R.R.

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 305, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 2830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil
 First Sample #: PIF00609

Sampled: May 4, 1999
 Relogged: Jun 11, 1999
 Extracted: May 7, 1999
 Analyzed: May 10, 1999
 Reported: Jun 24, 1999

TOTAL BARIUM (EPA 6010B)

Laboratory Number	Sample Description	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
PIF00609	QST-B2-(S/65)- (5/4/99)	1.0	49	05/07/99	05/10/99
PIF00610	QST-B3-(S/75)- (5/4/99)	1.0	93	05/07/99	05/10/99
PIF00615	QST-B4-(S/35)- (5/4/99)	1.0	56	05/07/99	05/10/99
PIF00616	QST-B4-(S/49)- (5/4/99)	1.0	150	05/07/99	05/10/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

 R.R.

Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4067 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil
 First Sample #: PIF00613

Sampled: May 5, 1999
 Relogged: Jun 11, 1999
 Extracted: May 7-10, 1999
 Analyzed: May 10-11, 1999
 Reported: Jun 24, 1999

TOTAL BARIUM (EPA 6010B)

Laboratory Number	Sample Description	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
PIF00613	QST-B1-(S/37.5)- (5/5/99)	1.0	90	05/07/99	05/10/99
PIF00614	QST-B1-(S/54)- (5/5/99)	1.0	65	05/07/99	05/10/99
PIF00618	QST-B5-(S/20)- (5/5/99)	1.0	110	05/10/99	05/11/99
PIF00619	QST-B5-(S/43)- (5/5/99)	1.0	66	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Coolay Dr., Suite A, Colton, CA 92324 (909) 370-4867 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 305, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil
 First Sample #: PIF00620

Sampled: May 6, 1999
 Relogged: Jun 11, 1999
 Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: Jun 24, 1999

TOTAL BARIUM (EPA 6010B)

Laboratory Number	Sample Description	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
PIF00620	QST-B6-(S/36)- (5/6/99)	1.0	90	05/10/99	05/11/99
PIF00621	QST-B6-(S/55)- (5/6/99)	1.0	38	05/10/99	05/11/99
PIF00626	QST-B14-(S/50)- (5/6/99)	1.0	63	05/10/99	05/11/99
PIF00627	QST-B14-(S/76)- (5/6/99)	1.0	210	05/10/99	05/11/99
PIF00628	QST-B15-(S/39)- (5/6/99)	1.0	96	05/10/99	05/11/99
PIF00629	QST-B15-(S/66)- (5/6/99)	1.0	390	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

R.R.

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4687 FAX (909) 370-1046
 10525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9586 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil
 First Sample #: PIF00632

Sampled: May 7, 1999
 Relogged: Jun 11, 1999
 Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: Jun 24, 1999

TOTAL BARIUM (EPA 6010B)

Laboratory Number	Sample Description	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
PIF00632	QST-B17-(S/15)- (5/7/99)	1.0	110	05/10/99	05/11/99
PIF00633	QST-B17-(S/65)- (5/7/99)	1.0	47	05/10/99	05/11/99
PIF00634	QST-B16-(S/26)- (5/7/99)	1.0	95	05/10/99	05/11/99
PIF00635	QST-B16-(S/30)- (5/7/99)	1.0	85	05/10/99	05/11/99
PIF00636	QST-B16-(S/75)- (5/7/99)	1.0	290	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 305, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil
 First Sample #: PIF00638

Sampled: May 10, 1999
 Relogged: Jun 11, 1999
 Extracted: May 12-20, 1999
 Analyzed: May 13-23, 1999
 Reported: Jun 24, 1999

TOTAL BARIUM (EPA 6010B)

Laboratory Number	Sample Description	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
PIF00638	QST-B19-(S/40)- (5/10/99)	1.0	120	05/20/99	05/23/99
PIF00639	QST-B19-(S/70)- (5/10/99)	1.0	140	05/12/99	05/13/99
PIF00641	QST-B18-(S/40)- (5/10/99)	1.0	97	05/12/99	05/13/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil
 First Sample #: PIF00646

Sampled: May 11, 1999
 Relogged: Jun 11, 1999
 Extracted: May 12-21, 1999
 Analyzed: May 13-23, 1999
 Reported: Jun 24, 1999

TOTAL BARIUM (EPA 6010B)

Laboratory Number	Sample Description	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
PIF00646	QST-B20-(S/64)- (5/11/99)	1.0	110	05/12/99	05/13/99
PIF00647	QST-B20-(S/25)- (5/11/99)	1.0	100	05/12/99	05/13/99
PIF00649	QST-B21-(S/20)- (5/11/99)	1.0	85	05/21/99	05/23/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 305, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil
 First Sample #: PIF00608

Sampled: May 3, 1999
 Relogged: Jun 11, 1999
 Extracted: May 7, 1999
 Analyzed: May 10, 1999
 Reported: Jun 24, 1999

TOTAL MANGANESE (EPA 6010B)

Laboratory Number	Sample Description	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
PIF00608	QST-B2-(S/8)- (5/3/99)	5.0	160	05/07/99	05/10/99
PIF00611	QST-B3-(S/45)- (5/3/99)	5.0	760	05/07/99	05/10/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil
 First Sample #: PIF00609

Sampled: May 4, 1999
 Relogged: Jun 11, 1999
 Extracted: May 7, 1999
 Analyzed: May 10, 1999
 Reported: Jun 24, 1999

TOTAL MANGANESE (EPA 6010B)

Laboratory Number	Sample Description	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
PIF00609	QST-B2-(S/65)- (5/4/99)	5.0	230	05/07/99	05/10/99
PIF00610	QST-B3-(S/75)- (5/4/99)	5.0	360	05/07/99	05/10/99
PIF00615	QST-B4-(S/35)- (5/4/99)	5.0	270	05/07/99	05/10/99
PIF00616	QST-B4-(S/49)- (5/4/99)	5.0	280	05/07/99	05/10/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



Del Mar Analytical

2852 Allen Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Coolay Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 770-8444 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 305, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 795-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil
 First Sample #: PIF00613

Sampled: May 5, 1999
 Relogged: Jun 11, 1999
 Extracted: May 7-10, 1999
 Analyzed: May 10-11, 1999
 Reported: Jun 24, 1999

TOTAL MANGANESE (EPA 6010B)

Laboratory Number	Sample Description	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
PIF00613	QST-B1-(S/37.5)- (5/5/99)	5.0	460	05/07/99	05/10/99
PIF00614	QST-B1-(S/54)- (5/5/99)	5.0	340	05/07/99	05/10/99
PIF00618	QST-B5-(S/20)- (5/5/99)	5.0	320	05/10/99	05/11/99
PIF00619	QST-B5-(S/43)- (5/5/99)	5.0	130	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil
 First Sample #: PIF00620

Sampled: May 6, 1999
 Relogged: Jun 11, 1999
 Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: Jun 24, 1999

TOTAL MANGANESE (EPA 6010B)

Laboratory Number	Sample Description	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
PIF00620	QST-B6-(S/36)- (5/6/99)	5.0	450	05/10/99	05/11/99
PIF00621	QST-B6-(S/55)- (5/6/99)	5.0	270	05/10/99	05/11/99
PIF00626	QST-B14-(S/50)- (5/6/99)	5.0	490	05/10/99	05/11/99
PIF00627	QST-B14-(S/76)- (5/6/99)	5.0	1,700	05/10/99	05/11/99
PIF00628	QST-B15-(S/39)- (5/6/99)	5.0	240	05/10/99	05/11/99
PIF00629	QST-B15-(S/66)- (5/6/99)	5.0	3,800	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil
 First Sample #: PIF00632

Sampled: May 7, 1999
 Relogged: Jun 11, 1999
 Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: Jun 24, 1999

TOTAL MANGANESE (EPA 6010B)

Laboratory Number	Sample Description	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
PIF00632	QST-B17-(S/15)- (5/7/99)	5.0	260	05/10/99	05/11/99
PIF00633	QST-B17-(S/65)- (5/7/99)	5.0	250	05/10/99	05/11/99
PIF00634	QST-B16-(S/26)- (5/7/99)	5.0	240	05/10/99	05/11/99
PIF00635	QST-B16-(S/30)- (5/7/99)	5.0	190	05/10/99	05/11/99
PIF00636	QST-B16-(S/75)- (5/7/99)	5.0	1,400	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



R.R.

Robyn Rice
 Project Manager

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil
 First Sample #: PIF00638

Sampled: May 10, 1999
 Relogged: Jun 11, 1999
 Extracted: May 12-20, 1999
 Analyzed: May 13-23, 1999
 Reported: Jun 24, 1999

TOTAL MANGANESE (EPA 6010B)

Laboratory Number	Sample Description	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
PIF00638	QST-B19-(S/40)- (5/10/99)	5.0	140	05/20/99	05/23/99
PIF00639	QST-B19-(S/70)- (5/10/99)	5.0	1,100	05/12/99	05/13/99
PIF00641	QST-B18-(S/40)- (5/10/99)	5.0	260	05/12/99	05/13/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1028
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1844
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil
 First Sample #: PIF00646

Sampled: May 11, 1999
 Relogged: Jun 11, 1999
 Extracted: May 12-21, 1999
 Analyzed: May 13-23, 1999
 Reported: Jun 24, 1999

TOTAL MANGANESE (EPA 6010B)

Laboratory Number	Sample Description	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
PIF00646	QST-B20-(S/64)- (5/11/99)	5.0	400	05/12/99	05/13/99
PIF00647	QST-B20-(S/25)- (5/11/99)	5.0	250	05/12/99	05/13/99
PIF00649	QST-B21-(S/20)- (5/11/99)	5.0	380	05/21/99	05/23/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 5-13, 1999
 Analyzed: May 6-14, 1999
 Reported: Jun 24, 1999
 Matrix: Water

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Barium.....	EPA 200.7	0.010	N.D.	May 5-13, 1999	May 6-14, 1999
Manganese.....	EPA 200.7	0.050	N.D.	May 5-13, 1999	May 6-14, 1999

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



R.R.

Robyn Rice
 Project Manager

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 7-21, 1999
 Analyzed: May 10-23, 1999
 Reported: Jun 24, 1999
 Matrix: Soil

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Barium.....	EPA 6010B	1.0	N.D.	May 7-21, 1999	May 10-23, 1999
Manganese.....	EPA 6010B	5.0	N.D.	May 7-21, 1999	May 10-23, 1999

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/6/99
 Sample #: PIE00111

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Barium	0	1.0	0.909	0.918	91%	92%	1.0%	91%
Manganese	0	1.0	0.915	0.919	92%	92%	0.4%	92%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/7/99
 Sample #: PIE00162

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Barium	0	1.0	0.902	0.938	90%	94%	3.9%	92%
Manganese	0	1.0	0.904	0.944	90%	94%	4.3%	92%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1) / SP) X 100
- PR2..... Percent Recovery of MSD; ((MSD-R1) / SP) X 100
- RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4867 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 805-9596 FAX (619) 805-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/11/99
 Sample #: PIE00214

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Barium	0.0579	1.0	0.918	0.942	86%	88%	2.6%	87%
Manganese	0	1.0	0.859	0.885	86%	89%	3.0%	87%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
 MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/12/99
 Sample #: PIE00396

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
_____	ppm	ppm	ppm	ppm	%	%	%	%

Barium	8.41	1.0	9.10	8.75	69%	34%	3.9%	52%
Manganese	25.7	1.0	26.1	26.3	40%	60%	0.8%	50%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1) / SP) X 100
- PR2..... Percent Recovery of MSD; ((MSD-R1) / SP) X 100
- RPD..... Relative Percent Difference: ((MS-MSD)/(MS+MSD)/2) X 100
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 70-130%

QA/QC Criteria: Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See LCS for batch validation.



LCS DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

DATE: 5/12/99

Analyte	St	LCS	PR
	ppm	ppm	%
Barium	1.0	0.913	91%
Manganese	1.0	0.887	89%

Definition of Terms:

- St. Standard Concentration
- LCS. Standard Result
- PR. Percent Recovery of LCS; $(LCS/St) \times 100$
- Acceptance Limits LCS: 85-115%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1011 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C 11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/14/99
 Sample #: PIE00678

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Barium	0.034	1.0	1.01	1.02	98%	99%	1.0%	98%
Manganese	0	1.0	0.987	0.997	99%	100%	1.0%	99%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: $< \text{ or } = 20\%$
 MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/10/99
 Sample #: PID01616

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN
	ppm	ppm	ppm	ppm	%	%	%	PR
Barium	136	50.0	192	192	112%	112%	0.0%	112%
Manganese	323	50.0	380	381	114%	116%	0.3%	115%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: $< \text{ or } = 20\%$
 MS/MSD: 75-125%

QA/QC Criteria: All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/11/99
 Sample #: PIE00281

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN
	ppm	ppm	ppm	ppm	%	%	%	PR
Barium	85.5	50.0	137	137	103%	103%	0.0%	103%
Manganese	347	50.0	383	421	72%	148%	9.5%	110%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
INSTRUMENT: ICP
MATRIX: Soil

DATE: 5/11/99

Analyte	St	R1	PR
	ppm	ppm	%
Manganese	50.0	46.0	92%

Definition of Terms:

- St.**..... Standard Concentration
- R1.**..... Standard Result
- PR.**..... Percent Recovery of R1; $(R1/St) \times 100$
- Acceptance Limits** LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)

MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/13/99
 Sample #: PIE00395

Analyte	MEAN							
	R1	SP	MS	MSD	PR1	PR2	RPD	PR
	ppm	ppm	ppm	ppm	%	%	%	%
Barium	97.0	50.0	166	154	138%	114%	7.5%	126%
Manganese	264	50.0	320	316	112%	104%	1.3%	108%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2)) \times 100$
- Acceptance Limits RPD: $< \text{ or } = 20\%$
 MS/MSD: 75-125%

QA/QC Criteria: The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-0596 FAX (619) 505-0689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
INSTRUMENT: ICP
MATRIX: Soil

DATE: 5/13/99

Analyte	St	R1	PR
	ppm	ppm	%
Barium	50.0	50.4	101%

Definition of Terms:

St...... Standard Concentration

R1...... Standard Result

PR...... Percent Recovery of R1; $(R1/St) \times 100$

Acceptance Limits LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/23/99
 Sample #: PIE00646

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN
	ppm	ppm	ppm	ppm	%	%	%	PR
Barium	42.9	50.0	95.4	103	105%	120%	7.7%	113%
Manganese	288	50.0	337	389	98%	202%	14.3%	150%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See LCS for batch validation.



Del Mar Analytical

2852 Allan Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 305, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

DATE: 5/23/99

Analyte	St	R1	PR
	ppm	ppm	%
Manganese	50.0	48.8	98%

Definition of Terms:

- St. Standard Concentration
- R1. Standard Result
- PR. Percent Recovery of R1; $(R1/St) \times 100$
- Acceptance Limits LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)

MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/23/99
 Sample #: PIE00455

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN
	ppm	ppm	ppm	ppm	%	%	%	PR
Barium	17.9	50.0	60.2	67.7	85%	100%	11.7%	92%
Manganese	65.7	50.0	113	129	95%	127%	13.2%	111%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 10525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 4484 Chesapeake Dr., Suite 305, San Diego, CA 92123 (619) 505-9586 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
INSTRUMENT: ICP
MATRIX: Soil

DATE: 5/23/99

Analyte	St	R1	PR
<u> </u>	<u>ppm</u>	<u>ppm</u>	<u>%</u>
Manganese	50.0	48.9	98%

Definition of Terms:

St. Standard Concentration

R1. Standard Result

PR. Percent Recovery of R1; $(R1/St) \times 100$

Acceptance Limits LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)

CHAIN OF CUSTODY FORM

Quote #: _____ Page 1 of _____

Client Name/Address:
WEST ENVIRONMENTAL, INC.
 126 N. 44TH ST., SUITE 110
 PHOENIX, AZ 85008

Project/VPO Number:
669 9030
ESTES LANDFILL

Project Manager:
JOHN MIEHER
 Sampler: **MATTHEW E GARLICK**
PATRICIA A. DROBAT

Phone Number:
(602) 244-1192
 Fax Number:
(602) 244-1192

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required										Special Instructions				
						VOC 8260	SVOC 8270	METALS (6010, 7411)	ORGANOCHLORINE PESTICIDES	BOB1	PCB 8082	ORGANOPHOSPHORUS PESTICIDES	0141	CHLORINATED	HERBICIDES 8151					
ST-B2-(G/W/73)-(5/4/99)	AQ	Glass/POLY	13	5-4-99 0941	metals-HNO ₃ VOC-HCl	2	2	1	2	2	2	2								CHILL 4°C
ST-B3-(G/W/78)-(5/4/99)	AQ	Glass/POLY	13	5-4-99 1020	metals-HNO ₃ VOC-HCl	2	2	1	2	2	2	2								CHILL 4°C
ST-B2-(S/B)-(5/3/99)	SOIL		2	5-3-99 1515	NONE	1	X	X	X	X	X	X								
ST-B2-(S/B5)-(5/4/99)	SOIL		3	5-4-99 0850	"	1	X	X	X	X	X	X								
ST-B3-(S/72)-(5/4/99)	SOIL		2	5-4-99 0915	"	1	X	X	X	X	X	X								
ST-B3-(S/45)-(5/3/99)	SOIL		2	5-3-99 1626	"	1	X	X	X	X	X	X								

Relinquished By: **JEFF MARTIN** Date/Time: **5-4-99 16:00**
 Relinquished By: **[Signature]** Date/Time: **5-4-99 16:20**
 Relinquished By: _____ Date/Time: _____

Received by: **[Signature]** Date/Time: **5-4-99 16:00**
 Received by: _____ Date/Time: _____
 Received in Lab by: **[Signature]** Date/Time: **5/4/99 16:00**

Turnaround Time: (Check) **check**
 same day _____ 72 hours _____
 24 hours _____ 5 days _____
 48 hours _____ normal _____
 Sample Integrity: (Check)
 intact _____ on ice **NA**

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

CHAIN OF CUSTODY FORM

Quote #: _____ Page 1 of 1

Client Name/Address: QST ENV 424 N 44TH ST #110 PHOENIX AZ 85008		Project/VPO Number: 6699030 ESTESLANDFILL		Analysis Required																
Project Manager: JOHN MURHER		Phone Number: 602 244 1192		VOC'S METHOD 8260	SVOC'S METHOD 8270	TOTAL METALS METHODS 6010/7471	DELTACHLORANE METHOD 8081	METHOD 8082	PCB'S METHOD 8141	CHLORINATED METHOD 8151										
Sampler: JOE MARTIN		Fax Number: 244 9280																		

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	VOC'S METHOD 8260	SVOC'S METHOD 8270	TOTAL METALS METHODS 6010/7471	DELTACHLORANE METHOD 8081	METHOD 8082	PCB'S METHOD 8141	CHLORINATED METHOD 8151	Special Instructions
EST-B1-(GW/TC)-(55-99) H2O	H2O	VARIES	13	5-5-99 11:00	VARIES	X	X	X	X	X	X	X	CHILL 4°C
TRIP BLANK	H2O	VOA	1	5-5-99	HCl	X							

Relinquished By: <i>[Signature]</i>	Date /Time: 1532 5-5-99	Received by: <i>[Signature]</i>	Date /Time: 5-5-99 1532	Turnaround Time: (Check) same day _____ 72 hours _____ 24 hours _____ 5 days _____ 48 hours _____ normal <input checked="" type="checkbox"/>
Relinquished By: <i>[Signature]</i>	Date /Time: 1603 5-5-99	Received by: <i>[Signature]</i>	Date /Time: 5/5/99 1603	
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:	

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

CHAIN OF CUSTODY FORM

Quote #: _____ Page 1 of 1

Client Name/Address: DST ENV. 126 N. YU74 ST #110 PHOENIX, AZ 85008		Project/PO Number: 6699030 ESTES LANDFILL	
Project Manager: JOHN MEYER		Phone Number: 6022441192	
Sampler: JEFF MARTIN		Fax Number: 2449280	

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required										Special Instructions		
						VOC'S	METHOD 8260	SVOC	METHOD 8270	TOTAL METALS	METHODS 6010/7471	METHOD 8081	METHOD 8082	METHOD 8141	METHOD 8151		OTHER	T.O.C. BLACK WALNUT METHOD
T-B1-(5/37.5)-(5-5-99)	SOIL	TEFLON BRASS	3	5-5-99 08:05	NONE CHILL	X	X	X	X	X	X	X						CHILL 4°C
T-B1-(5/54)-(5-5-99)	SOIL	TEFLON BRASS	3	5-5-99 08:45	NONE CHILL	X	X	X	X	X	X	X						
T-B4(5/35)-(5-4-99)	SOIL	TEFLON BRASS	2	5-4-99 15:31	CHILL	1	1											
T-B4(5/49)-(5-4-99)	SOIL	TEFLON BRASS	2	5-4-99 16:27	CHILL	1	1											
T-B1(5/48)-(5-5-99)	SOIL	TEFLON BRASS	2	5-5-99 08:30	CHILL													
T-B1-(5/65)-(5-5-99)	SOIL	TEFLON BRASS	1	5-5-99 09:05	CHILL													

Inquired By: <i>John Meyer</i> Date/Time: 5-5-99 15:31	Received by: <i>John Meyer</i> Date/Time: 5-5-99 15:31	Turnaround Time: (Check) same day _____ 72 hours <u>Check</u> 24 hours _____ 5 days _____ 48 hours _____ normal _____
Inquired By: <i>John Meyer</i> Date/Time: 5-5-99 16:03	Received by: <i>John Meyer</i> Date/Time: 5-5-99 16:03	
Inquired By: _____ Date/Time: _____	Received in Lab by: <i>Jaime Wood</i> Date/Time: 5-5-99 16:03	Sample Integrity: (Check) intact <u>6</u> on ice <u>X</u>

By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

Del Mar Analytical

2852 Alton Ave, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 25 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 30 South 51st St., Suite B-120, Phoenix, AZ 85044 (602) 785-0043 FAX (602) 785-0051
 Chesapeake Dr., Suite 605, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9699

GB- 7548

CHAIN OF CUSTODY FORM

Quote #: _____ Page 1 of 1

Client Name/Address:
PJT ENVIRONMENTAL, INC
126 N. 44TH ST., SUITE 110
PHOENIX, AZ

Project Manager: **JOHN MIEHER**

Analyst: **PATRICIA A. DROBAT**

Project/PO Number:
ESTES LANDFILL
669 9030

Phone Number:
602 244-1192

Fax Number:
602 244 9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required										Special Instructions	
						VOC 8260	SVOC 8270	METALS / HG 6010/7471	ORGANOCHLORINE PESTICIDES 8081	ORGANOPHOSPHORUS PESTICIDES 8082	PCB 8082	CHLORINATED HERBICIDES 8151	TOC	WALKLEY-BLACK			
ST-BA(GW/18)(5-5-99)	AQ	JARLES	13	1120 05-05-99	VOR-HCI NETPH HNS	2	2	1	2	2	2	2					CHILL 4°C
TRIP BLANK	AQ	VOA	1		HCI	1											CHILL 4°C
ST-BA(3/25)(5-4-99)	SOIL	BRASS	2	1503 5-4-99	CHILL										2		CHILL 4°C
ST-BA(5/55)(5-4-99)	SOIL	BRASS	2	1627 5-4-99	CHILL										2		CHILL 4°C

Relinquished By: <u>[Signature]</u> Date /Time: <u>15:33 5-5-99</u>	Received by: <u>[Signature]</u> Date /Time: <u>5-5-99 1533</u>	Turnaround Time: (Check) same day _____ 72 hours <u>Check</u> 24 hours _____ 5 days _____ 48 hours _____ normal _____	
Relinquished By: <u>[Signature]</u> Date /Time: <u>5-5-99 1603</u>	Received in Lab by: <u>[Signature]</u> Date /Time: <u>5-5-99 1603</u>		Sample Integrity: (Check) intact <u>X</u> on ice <u>X</u>

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

CHAIN OF CUSTODY FORM

Quote #: _____ Page 1 of 3

Client Name/Address: 1ST ENVIRONMENTAL, INC. 26 N. 44th ST., SUITE 110 PHOENIX, AZ Project Manager: JOHN MIEHER Compiler: ATRICIA DROBAT, JEFF MARTIN						Project/PO Number: ESTES LANDFILL 669 9080 Phone Number: Fax Number: 						Analysis Required													
						VOC 8260	SVOC 8270	TOTAL METALS 6010	TOTAL MERCURY 7471	ORGANOCHLORINE PESTICIDES 8081	PCBS 8082	ORGANOPHOSPHOROUS PESTICIDES 8141	CHLORINATED HERBICIDES 8151	<i>[Handwritten Signature]</i>		<i>[Handwritten Signature]</i>		Special Instructions							
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives																				
ST-85-(5/20)-5-5-99	SOIL	BRASS ENCORE	3	5-5-99 14:55	CHILL NONE	X	X	X	X	X	X	X	X						CHILL 4°C						
ST-85-(5/43)-5-5-99	SOIL	BRASS ENCORE	3	5-5-99 15:45	CHILL NONE	X	X	X	X	X	X	X	X												
ST-86-(5/36)-(5-6-99)	SOIL	BRASS ENCORE	2	5-6-99 8742	CHILL	1	1																		
ST-86-(5/55)-(5-6-99)	SOIL	BRASS ENCORE	2	5-6-99 0828	CHILL	1	1																		
<i>[Handwritten Signature]</i>																									
Relinquished By: <i>[Signature]</i> Date /Time: 5-6-99 15:29						Received by: <i>[Signature]</i> Date /Time: 5-6-99 15:29						Turnaround Time: (Check) <u>Check</u> same day _____ 72 hours _____ 24 hours _____ 5 days _____ 48 hours _____ normal _____													
Relinquished By: <i>[Signature]</i> Date /Time: 5-6-99 15:59						Received by: <i>[Signature]</i> Date /Time: 5-6-99 15:59						Sample Integrity: (Check) <u>intact</u> _____ on ice <u>X</u> _____													

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

CHAIN OF CUSTODY FORM

Quote #: _____ Page 2 of 3

Client Name/Address: ST ENVIRONMENTAL INC 26 N. 44TH ST, SUITE 110 HOENIX, AZ						Project/PO Number: ESTES LANDFILL 669 9030						Analysis Required																								
Project Manager: JOHN MIEHER						Phone Number:						<table border="1"> <tr> <td>VOC 8260</td> <td>SVOC 8270</td> <td>METALS/MERCURY</td> <td>BOI/THI</td> <td>ORGANO CHLORIDE PESTICIDES 8081</td> <td>PCBS</td> <td>8082</td> <td>ORGANO PHOSPHOROUS PESTICIDES 8141</td> <td>CHLORINATED HERBICIDES 8151</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						VOC 8260	SVOC 8270	METALS/MERCURY	BOI/THI	ORGANO CHLORIDE PESTICIDES 8081	PCBS	8082	ORGANO PHOSPHOROUS PESTICIDES 8141	CHLORINATED HERBICIDES 8151										
VOC 8260	SVOC 8270	METALS/MERCURY	BOI/THI	ORGANO CHLORIDE PESTICIDES 8081	PCBS	8082	ORGANO PHOSPHOROUS PESTICIDES 8141	CHLORINATED HERBICIDES 8151																												
Analyst: TRICIA DRABAT, JEFF MARTIN						Fax Number:																														
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	VOC 8260	SVOC 8270	METALS/MERCURY	BOI/THI	ORGANO CHLORIDE PESTICIDES 8081	PCBS	8082	ORGANO PHOSPHOROUS PESTICIDES 8141	CHLORINATED HERBICIDES 8151	Special Instructions																					
RIP BLANK	AQ	VOA	1	---	HCl	1	1	1	1	1	1	1	1	1	CHILL 4°C																					
T-BB (SW-70) (5-6-99)	AQ	VARIOUS	13	0915 5-6-99	VOA HCl	2	2	1	2	2	2	2	2	2	CHILL 4°C																					
Relinquished By: <u>Tricia Drabat</u> Date /Time: <u>5-6-99 1528</u>						Received by: <u>John Johnson</u> Date /Time: <u>5-6-99 1528</u>						Turnaround Time: (Check) <u>Check</u> same day _____ 72 hours _____ 24 hours _____ 5 days _____ 48 hours _____ normal _____																								
Relinquished By: <u>John Johnson</u> Date /Time: <u>5-6-99 1559</u>						Received in Lab by: <u>Daima Wood</u> Date /Time: <u>5-6-99 1559</u>						Sample Integrity: (Check) intact <u>X</u> on ice <u>X</u>																								

By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

CHAIN OF CUSTODY FORM

Quote #: _____ Page _____ of _____

Client Name/Address: QSI 126 N. 44th St #110 PHOENIX, AZ						Project/PO Number: 6699030 ESTABLISHED						Analysis Required																									
Project Manager: JOHN MEINER						Phone Number: 602 244 1192						<table border="1"> <tr> <td>VOC'S METHOD 8160</td> <td>SVOC'S METHOD 8270</td> <td>TOTAL METALS METHODS 6010/7471</td> <td>METHOD 8081</td> <td>PCB'S METHOD 8082</td> <td>METHOD 8141</td> <td>METHOD 8151</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						VOC'S METHOD 8160	SVOC'S METHOD 8270	TOTAL METALS METHODS 6010/7471	METHOD 8081	PCB'S METHOD 8082	METHOD 8141	METHOD 8151													
VOC'S METHOD 8160	SVOC'S METHOD 8270	TOTAL METALS METHODS 6010/7471	METHOD 8081	PCB'S METHOD 8082	METHOD 8141	METHOD 8151																															
Sampler: JEFF MARTIN						Fax Number: 244 9280																															

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	VOC'S METHOD 8160	SVOC'S METHOD 8270	TOTAL METALS METHODS 6010/7471	METHOD 8081	PCB'S METHOD 8082	METHOD 8141	METHOD 8151	Special Instructions
ST-B5-(6W/60)-5	H2O	VARIABLES	13	5-6-99 0900	VARIABLES	X	X	X	X	X	X	X	CHILL 4°C
TRIP BLANK	H2O	VOR	1	-	HCl	1	/	/	/	/	/	/	

Relinquished By: <i>[Signature]</i>	Date /Time: 5-6-99 1528	Received by: <i>[Signature]</i>	Date /Time: 5-6-99 1528	Turnaround Time: (Check) same day _____ 72 hours _____ 24 hours _____ 5 days _____ 48 hours _____ normal <input checked="" type="checkbox"/>
Relinquished By: <i>[Signature]</i>	Date /Time: 5-6-99 1518	Received by: <i>[Signature]</i>	Date /Time: 5-6-99 1528	
Relinquished By:	Date /Time:	Received/In Lab by: <i>[Signature]</i>	Date /Time: 5-6-99 1559		Sample Integrity: (Check) intact ☒ on ice ☒

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

CHAIN OF CUSTODY FORM

Quote #: _____ Page 1 of 2

Name/Address:
 1ST
 L.N. 44TH ST #110
 BLDG. A2

Project/PO Number:
 ESTES LANDFILL
 6699030

Manager:
 H.W. METHER
 BY: PATRICIA DROBAT,
 JEFF MARLIN

Phone Number:
 602.244.1192
 Fax Number:
 244-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required							Special Instructions
						VOC'S	METHOD 8260	SVOC'S	METHOD 8270	TOTAL METALS / PF	METHODS 6010/7471	METHOD 8081	
14-(6W/80)-5-6	H ₂ O 99	VARIES	13	5-6-99 1730	VARIES	X(2)	X(2)	X(1)	X(2)	X(2)	X(2)	X(2)	CHILL 4°C
TOP BLANK	AQ	VOC	1	—	HCl	X	/	/	/	/	/	/	CHILL 4°C
B5-(6W/85)-(569)	AQ	VARIES	13	5-6-99 1820	ICA-HCl metals, H ₂ O ₂	2	2	1	2	2	2	2	CHILL 4°C

Requested By: Patricia A. Drobat Date / Time: 5-7-99 1111

Received by: D. Pacheco Date / Time: 5/7/99 11:11

Turnaround Time: (Check)
 same day _____ 72 hours _____
 24 hours _____ 5 days _____
 48 hours _____ normal X

Requested By: Pacheco Date / Time: 5/7/99 1145

Received by: _____ Date / Time: _____

Requested By: _____ Date / Time: _____

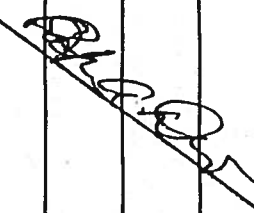
Received In Lab by: Jaime Wood Date / Time: 5/7/99 1145

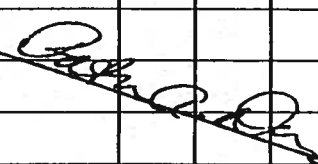
Sample Integrity: (Check)
 Intact X on ice X

By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

CHAIN OF CUSTODY FORM

Quote #: _____ Page 2 of 2

Client Name/Address: ST LN. 4474 ST #110 HUNTER AZ		Project/PO Number: 6699030 ESTES LAUDFILL		Analysis Required										
Client Manager: DAN MATHIEZ		Phone Number: 602 244 1192		VOC'S	SULF'S	TOTAL METALS	METHOD 8081	METHOD 8082	METHOD 8141	METHOD 8151				
Analyst: PATRICIA DROBAT, JEFF MARTIN		Fax Number: 244-9280		METHOD 8260	METHOD 8270	METHODS 6010/7471								

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	VOC'S	SULF'S	TOTAL METALS	METHOD 8081	METHOD 8082	METHOD 8141	METHOD 8151	Special Instructions
B14-(5/56)-5-6-99	SOIL	VARIES	3	5-6-99 1420	NONE	X	X	X	X	X	X	X	CHILL 4°C
B14-(5/76)-5-6-99	SOIL	VARIES	3	5-6-99 1525	NONE	X	X	X	X	X	X	X	CHILL 4°C
B15(5/39)(5-6-99)	SOIL	VARIES	3	5-6-99 1431	NONE	1	2						CHILL 4°C
B15(5/66)-(5-6-99)	SOIL	VARIES	2	5-6-99 1545	NONE	1	1						CHILL 4°C
													

Relinquished By: <u>[Signature]</u> Date /Time: <u>5-7-99 1111</u>	Received by: <u>[Signature]</u> Date /Time: <u>5/7/99 11:11</u>	Turnaround Time: (Check) same day _____ 72 hours _____ 24 hours _____ 5 days _____ 48 hours _____ normal <input checked="" type="checkbox"/>
Relinquished By: <u>[Signature]</u> Date /Time: <u>5/7/99 1115</u>	Received by: <u>[Signature]</u> Date /Time: <u>5/7/99 1145</u>	
Relinquished By: _____ Date /Time: _____	Received in Lab by: <u>[Signature]</u> Date /Time: <u>5/7/99 1145</u>	Sample Integrity: (Check) intact <input checked="" type="checkbox"/> on ice <input checked="" type="checkbox"/>

By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days. COC-GB

CHAIN OF CUSTODY FORM

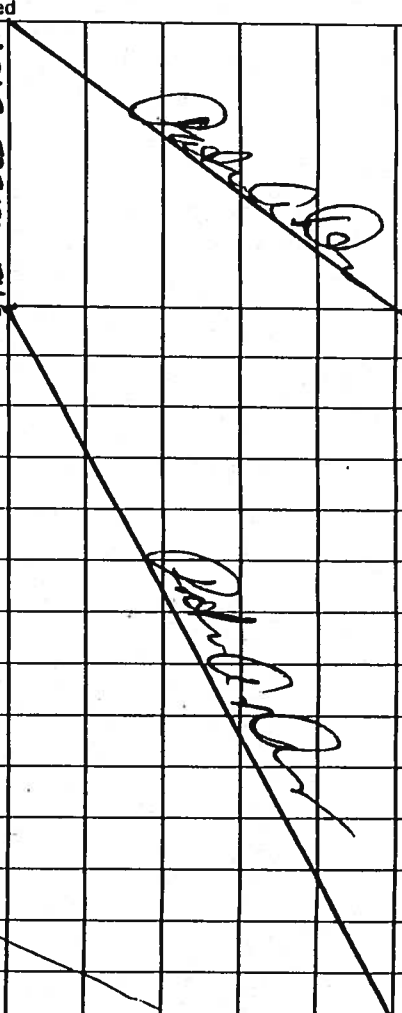
Quote #: _____ Page 1 of 1

Client Name/Address: ST ENVIRONMENTAL INC 26 N. 44TH ST., SUITE 110 PHOENIX, AZ Project Manager: JOHN MIEHER			Project/PO Number: ESTES LANDFILL 669 9030			Analysis Required										
Sample Manager: JEFF MARTIN PATRICIA DROBAT			Phone Number: 602 244 1192			VOC 8260	SVOC 8270	METALS / MERCURY 6010 / 7174	PCB 8082	ORGANIC CHLORINE PESTICIDES 8081	ORGANIC PHOSPHORUS PESTICIDES 8141	ORGANIC NITROGEN PESTICIDES 8151				
Sample Manager: JEFF MARTIN PATRICIA DROBAT			Fax Number: 602 244 9280													
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	VOC 8260	SVOC 8270	METALS / MERCURY 6010 / 7174	PCB 8082	ORGANIC CHLORINE PESTICIDES 8081	ORGANIC PHOSPHORUS PESTICIDES 8141	ORGANIC NITROGEN PESTICIDES 8151	Special Instructions			
TRIP BLANK	AQ	VOA	1	—	HCl	1	/	/	/	/	/	/	CHILL 4°C			
T-B17 (6W/80) (5-7-99)	AQ	VARIES	13	5-7-99 15:30	MARK HINDS VOA-HCl	2	2	1	2	2	2	2	[Large diagonal signature across the table]			
T-B27 (6W/80) (5-7-99)	AQ	VARIES	13	5-7-99 16:00	MARK HINDS Metals-HindS VOA-HCl	2	2	1	2	2	2	2				
T-B17 (S15) (5-7-99)	SOIL	VARIES	2	5-7-99 09:50	CHILL	1	1	—	—	—	—	—				
T-B17 (S15) (5-7-99)	SOIL	VARIES	3	5-7-99 11:35	CHILL	2	2	—	—	—	—	—				
T-B16 (S126) (5-7-99)	SOIL	VARIES	2	5-7-99 10:23	CHILL	X	X	X	X	X	X	X				
T-B16 (S130) (5-7-99)	SOIL	VARIES	2	5-7-99 10:44	CHILL	X	X	X	X	X	X	X				
T-B16 (S175) (5-7-99)	SOIL	VARIES	2	5-7-99 14:34	CHILL	X	X	X	X	X	X	X				
Relinquished By: JEFF MARTIN			Date / Time: 5-7-99 16:20			Received by: [Signature]			Date / Time: 5/7/99 16:20			Turnaround Time: (Check)				
Relinquished By: [Signature]			Date / Time: 5/7/99 16:40			Received by:			Date / Time:			same day _____ 72 hours _____				
Relinquished By:			Date / Time:			Received in Lab by:			Date / Time:			24 hours _____ 5 days _____				
Relinquished By:			Date / Time:			Received in Lab by:			Date / Time:			48 hours _____ normal <input checked="" type="checkbox"/>				
Sample Integrity: (Check)												intact <input checked="" type="checkbox"/> on ice <input checked="" type="checkbox"/>				

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

CHAIN OF CUSTODY FORM

Quote #: _____ Page 1 of 1

Client Name/Address: ST ENVIRONMENTAL INC. 6. N. 44TH ST., SUITE 110 PHOENIX, AZ						Project/PO Number: ESTES LANDFILL 669 9030						Analysis Required											
Project Manager: JOHN MIEHEL						Phone Number: (602) 244-1192																	
Operator: PATRICIA DROBAT JEFF MARTIN						Fax Number: (602) 244-9280																	
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	VOC 8260	SVOC 8270	METALS/MERCURY 6010/7174	PCB 8082	ORGANOCHLORINE PESTICIDES 8081	ORGANO PHOSPHORUS PESTICIDES 8141	CHLORINATED PESTICIDES 8151	Special Instructions										
RIP BLANK	AQ	VOA	1	—	HCl	1	/	/	/	/	/	/	CHILL 40C										
B16-(6W/SD)-5779	AQ	VARIES	13	5-7-99 16:25	VARIES	X	X	X	X	X	X	X											

Acquired By: <i>John A. DeS...</i>	Date /Time: 5-7-99 1704	Received by: <i>Jeff Martin</i>	Date /Time: 5/7/99 1704	Turnaround Time: (Check) same day _____ 72 hours _____ 24 hours _____ 5 days _____ 48 hours _____ normal <input checked="" type="checkbox"/>
Acquired By: <i>John C. [Signature]</i>	Date /Time: 5/7/99 1730	Received by:	Date /Time:	
Acquired By:	Date /Time:	Received in Lab by: <i>Trina Wood</i>	Date /Time: 5/7/99 1730		Sample Integrity: (Check) intact ☒ on ice ☒

By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

CHAIN OF CUSTODY FORM

Quote #: _____ Page 1 of 1

Client Name/Address: 1ST ENVIRONMENTAL INC. 26 N. 44TH ST., SUITE 110 PHOENIX, AZ		Project/PO Number: ESTES LANDFILL 669 9030		Analysis Required																														
Project Manager: JOHN MIEHER		Phone Number: (602) 244-1192		<table border="1"> <tr> <td>VOL 8260</td> <td>SVOC 8270</td> <td>metals/mercury</td> <td>6010/7471</td> <td>organochlorine</td> <td>pesticides 8081</td> <td>PCB 8082</td> <td>organophosphorus</td> <td>pesticides 8141</td> <td>chlorinated</td> <td>herbicides 8151</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>										VOL 8260	SVOC 8270	metals/mercury	6010/7471	organochlorine	pesticides 8081	PCB 8082	organophosphorus	pesticides 8141	chlorinated	herbicides 8151										
VOL 8260	SVOC 8270	metals/mercury	6010/7471	organochlorine	pesticides 8081	PCB 8082	organophosphorus	pesticides 8141	chlorinated	herbicides 8151																								
Sampler: JEFF MARTIN PATRICIA DROBAT		Fax Number: (602) 244-9280		Special Instructions																														
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	VOL 8260	SVOC 8270	metals/mercury	6010/7471	organochlorine	pesticides 8081	PCB 8082	organophosphorus	pesticides 8141	chlorinated	herbicides 8151																		
B19-(5/16)-5-10-99	SOIL	VAGES	2	5-10-99 10:25	NONE	X	X	X	X	X	X	X	X	X	X																			
B19-(5/70)-5-10-99	SOIL	VAGUES	3	5-10-99 11:15	NONE	X	X	X	X	X	X	X	X	X	X																			
TRIP BLANK	AQ	VOA	2	5-10-99 1509	HCl	2	/	/	/	/	/	/	/	/	/																			
ST-B18(6/1/85)(5-10-99)	AQ	VAGUES	13	5-10-99 1427	HCl-VOA HNO3-nobls	2	2	1	2	2	2	2	2	2	2																			
ST-B18(5/14)(5-09)	SOIL	VAGUES	3	5-10-99 1120	CHILL	1	2																											
B19(6/4/80)5-10-99	H2O	VAGUES	13	5-10-99 14:30	VAGUES	X	X	X	X	X	X	X	X	X	X																			
B18(5/14)(5-10-99)	SOIL	ENCORE	1	5-10-99 1152	CHILL	1	/	/	/	/	/	/	/	/	/																			

John Mieher

Patricia Drobot

Relinquished By: <i>Patricia Drobot</i>	Date / Time: 5-10-99 1519	Received by: <i>W. Johnson</i>	Date / Time: 5-10-99 1519	Turnaround Time: (Check) same day _____ 72 hours <u>Quick</u> 24 hours _____ 5 days _____ 48 hours _____ normal _____
Relinquished By: <i>W. Johnson</i>	Date / Time: 5-10-99 1558	Received by:	Date / Time:	
Relinquished By:	Date / Time:	Received in Lab by: <i>Jaime Wood</i>	Date / Time: 5/10/99 1558	

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

CHAIN OF CUSTODY FORM

Quote #: _____ Page 1 of _____

Client Name/Address: ST ENVIRONMENTAL INC 5 N 44TH ST., SUITE 110 PHOENIX, AZ			Project/PO Number: ESTES LANDFILL 669 9030			Analysis Required														
Project Manager: JOHN MEIER			Phone Number: (602) 244-1192			BZ60 VOC	BZ70 SVOC	METALS/MERCURY 6010/1471	ORGANOCHLORINE PESTICIDES 8081	PCB 8082	ORG AND PHOSPHORUS PESTICIDES B141	CHLORINATED HYDROCARBON PESTICIDES 8151	TOC walkley-black	Special Instructions						
Analyst: JEFF MARRIN PATRICIA DRABAT			Fax Number: (602) 244-9280																	
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives															
-B20 (GW/80) (5-11-99)	AQ	varies	13	5-11-99 1107	Voa-Hcl metals HNO ₃	2	2	1	2	2	2	2	/							
-B31 (GW/80) (5-11-99)	AQ	varies	13	5-11-99 1213	Voa-Hcl metals HNO ₃	2	2	1	2	2	2	2	/							
-B30 (GW/80) (5-11-99)	AQ	varies	13	5-11-99 1407	Voa-Hcl metals HNO ₃	2	2	1	2	2	2	2	/							
-B20 (S/70) (5-11-99)	SOIL	brass	1	5-11-99 1009	CHILL	/	/	/	/	/	/	/	/							
-B20 (S/64) (5-11-99)	SOIL	varies	2	5-11-99 0857	CHILL	1	2	/	/	/	/	/	/							
-B20 (S/25) (5-11-99)	SOIL	varies	3	5-11-99 0947	CHILL	2	2	/	/	/	/	/	/							
RIP BLANK	AQ	VOA	4	—	CHILL	4	/	/	/	/	/	/	/							
-B40 (GW/80) (5-11-99)	AQ	varies	13	5-11-99 1440	Voa-Hcl metals HNO ₃	2	2	1	2	2	2	2	/							
-B21 (S/20) (5-11-99)	SOIL	varies	3	5-11-99 0930	CHILL	X	X	X	X	X	X	X	/							
-B21 (S/35) (5-11-99)	SOIL	varies	3	5-11-99 1120	CHILL	X	X	X	X	X	X	X	/							
B21-(GW/80) (5-11-99)	H2O	varies	13	5-11-99 1415	V.A.Z.E.S	X	X	X	X	X	X	X	/							

Relinquished By: JEFF MARRIN Date/Time: 5-11-99 15:30	Received by: T. J. Tolman Date/Time: 5-11-99 15:30	Turnaround Time: (Check) same day _____ 72 hours _____ 24 hours _____ 5 days _____ 48 hours _____ normal _____
Relinquished By: T. J. Tolman Date/Time: 5-11-99 16:00	Received in Lab by: Jaime Wood Date/Time: 5-11-99 16:00	
Sample Integrity: (Check) intact <input checked="" type="checkbox"/> on ice <input checked="" type="checkbox"/>		

By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

Del Mar Analytical

2852 Alton Ave. CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A CA 92324 (909) 370-4667 FAX (909) 370-1046
 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 South 31st St., Suite B-120, Phoenix, AZ 85044 (602) 785-0043 FAX (602) 785-0851
 Mesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

012028

CHAIN OF CUSTODY FORM

Page 1 of 1

Name/Address: JST 26 N. 44TH ST #110 PHOENIX AZ		Project/PO Number: 6699030 ESTES LANDFILL		Analysis Required								
Manager: LHN MIEHTEZ		Phone Number: 602 244 1192		0923 METHOD	0128 METHOD	1441 METHODS 6010/17471	1808 METHOD	2808 METHOD	1818 METHOD	1518 METHOD	Special Instructions	
ler: JEFF MARTIN		Fax Number: 244 9280										

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	METHOD 0923	METHOD 0128	METHODS 1441 / 6010 / 17471	METHOD 1808	METHOD 2808	METHOD 1818	METHOD 1518	Special Instructions
10-(S/10)-5-11-99	SOIL	VIALS	3	5-11-99 1640	NONE	X	X	X	X	X	X	X	
310(S/50)-5-12-99	SOIL	VIALS	2	5-12-99 0825	NONE	X	X	X	X	X	X	X	
60-(GW/50)-5-12-99	H2O	VIALS	13	5-12-99 0930	VARIABLES	X	X	X	X	X	X	X	
P BLANK	H2O	VIALS	34	-	YES	X							
9-(S/20)-5-12-99	SOIL	VIALS	3	5-12-99 11:15	NONE	X	X	X	X	X	X	X	
i-(S/50)-5-12-99	SOIL	VIALS	2	5-12-99 1205	NONE	X	X	X	X	X	X	X	
9-(GW/50)-5-12-99	H2O	VIALS	13	5-12-99 1430	VARIABLES	X	X	X	X	X	X	X	
14H(GW/55)-5-12-99	H2O	VIALS	13	5-12-99 1545	VARIABLES	X	X	X	X	X	X	X	
32-(GW/55)-5-12-99	H2O	VIALS	13	5-12-99 1600	VARIABLES	X	X	X	X	X	X	X	

Shipped By: JEFF MARTIN	Date / Time: 5-12-99 1640	Received by: [Signature]	Date / Time: 5-12-99 1640	Turnaround Time: (Check) same day _____ 72 hours _____ 24 hours _____ 5 days _____ 48 hours _____ normal <u>2 weeks</u>
Shipped By: [Signature]	Date / Time: 5-12-99 1714	Received by: [Signature]	Date / Time: 5-12-99 1714	
Shipped By: [Signature]	Date / Time: 5-12-99 1714	Received in Lab by: [Signature]	Date / Time: 5-12-99 1714	Sample Integrity: (Check) intact <u>X</u> on ice <u>X</u>

By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

Del Mar Analytical

2852 Alton Ave., CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite 100, CA 92324 (909) 370-4667 FAX (909) 370-1046
 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 South 51st St., Suite B-120, Phoenix, AZ 85044 (602) 785-0043 FAX (602) 785-0851
 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

012037

CHAIN OF CUSTODY FORM

Page 1 of 1

Client Name/Address: BEST ENVIRONMENTAL INC. 16 N 44TH ST. SUITE 110 PHOENIX, AZ Client Manager: JOHN MIEHEL JEFF MARTIN TRICIA DROBAT			Project/PO Number: ESTES LANDFILL 669 9030			Analysis Required									
Phone Number: (602) 244-1192			Fax Number: (602) 244-9280			8260 VOC	8270 SVOC	METALS / MERCURY 6010/7471	ORGANIC PESTICIDES 8081	PCB 8082	ORGANIC PESTICIDES 8141	CHLORINATED HERBICIDES 8151	ASTM D2487	TOC WALKLEY-BLACK	Special Instructions
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives										
B8)(S/45)(5-12-99)	SOIL	VARIES	2	5-11-99 1637	CHILL	1	1					/	/	ANALYZE FOR TOC BY WALKLEY-BLACK	
B5)(S/35)(5-12-99)	SOIL	VARIES	3	5-11-99 1614	CHILL	1	2					/	/		
B8)(GW/65)(5-12-99)	AQ	VARIES	13	5-12-99 0847	VOA-HCl METALS HNO3	2	2	1	2	2	2	/	/		
B8)(S/57)(5-12-99)	SOIL	BRASS	1	5-12-99 0803	CHILL	/	/	/	/	/	/	/	/		
B7)(S/55)(5-12-99)	SOIL	VARIES	2	5-12-99 1422	CHILL	1	1					/	X		
B7)(S/57)(5-12-99)	SOIL	VARIES	2	5-12-99 1215	CHILL	1	1					/	/		
B7)(S/57)(5-12-99)	SOIL	BRASS	2	5-12-99 1117	CHILL	/	/	/	/	/	/	/	/		
B7)(GW/65)(5-12-99)	AQ	VARIES	13	5-12-99 1508	HCl-VOA HNO3-METALS	2	2	1	2	2	2	/	/		
B33)(GW/65)(5-12-99)	AQ	VARIES	13	5-12-99 1555	HCl-VOA HNO3-METALS	2	2	1	2	2	2	/	/		
FIELD BLANK	AQ	VOA	3	---	HCl	3	/	/	/	/	/	/	/		

Relinquished By: <i>Tricia Drobot</i>	Date / Time: 5-12-99 1639	Received by: <i>John Miehel</i>	Date / Time: 5-12-99 1639	Turnaround Time: (Check) same day _____ 72 hours _____ 24 hours _____ 5 days _____ 48 hours _____ normal <u>2 WEEK</u>
Relinquished By: <i>John Miehel</i>	Date / Time: 5-12-99 1716	Received by:	Date / Time:	
Relinquished By:	Date / Time:	Received in Lab by: <i>Tricia Drobot</i>	Date / Time: 5-12-99 1716	
Sample Integrity: (Check) intact <u>X</u> on ice <u>X</u>				

By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

Del Mar Analytical

2852 Alton Ave., CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, CA 92324 (909) 370-4667 FAX (909) 370-1046
 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 South 51st St., Suite B-120, Phoenix, AZ 85044 (602) 785-0043 FAX (602) 785-0851
 Mesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

012074

CHAIN OF CUSTODY FORM

Page 1 of 1

Name/Address: TENVIRONMENTAL INC. N. 44TH ST., SUITE 110. PHOENIX, AZ	Project/PO Number: ESTES LANDFILL 669 9030	Analysis Required									
---	--	-------------------	--	--	--	--	--	--	--	--	--

Site Manager: JOHN MEHER	Phone Number: (602) 244-1192	Fax Number: (602) 244-9280	VOC B260	SVOC B270	organochlorine BOB1 pesticides	BOB2 PCB	METALS / Hg 600 / 7471	organophosphorus B1A1 pesticides	chlorinated B1S1 herbicides	TOC WAKLEY-BLACK	
------------------------------------	--	--------------------------------------	----------	-----------	-----------------------------------	----------	---------------------------	-------------------------------------	--------------------------------	---------------------	--

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	VOC B260	SVOC B270	organochlorine BOB1 pesticides	BOB2 PCB	METALS / Hg 600 / 7471	organophosphorus B1A1 pesticides	chlorinated B1S1 herbicides	TOC WAKLEY-BLACK	Special Instructions
B11(GW/15)(5-19-99)	AQ	VARIOUS	13	5-19-99 1236	VOA-HCl metals HNO ₃	2	2	2	2	1	2	2	/	
B11(S/66)(5-19-99)	SOIL	ENCORE BRASS	2	5-19-99 1140	CHILL	1	1						→	
B11(S/5)(5-19-99)	SOIL	ENCORE BRASS	2	5-19-99 0927	CHILL	1	1						→	
B31(GW/60)(5-19-99)	AQ	VARIOUS	14	5-19-99 1500	VOA-HCl metals HNO ₃	2	2	2	2	1	2	2	1	
TRIP BLANK/B11	AQ	VOA	1	5-19-99 1520	HCL	1								
TRIP BLANK/R-34	AQ	VOA	1	5-19-99	HCL	1								

Shipped By: <i>[Signature]</i>	Date /Time: 05/19/99 1605	Received by: <i>[Signature]</i>	Date /Time: 05/19/99 1605	Turnaround Time: (Check)	
Shipped By:	Date /Time:	Received by:	Date /Time:	same day	72 hours
				24 hours	5 days
				48 hours	normal <input checked="" type="checkbox"/>
Shipped By:	Date /Time:	Received in Lab by: <i>Jaime Wood</i>	Date /Time: 5/19/99 1605	Sample Integrity: (Check)	
				intact <input checked="" type="checkbox"/>	on ice <input checked="" type="checkbox"/>

By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

Del Mar Analytical

2852 Alton Ave. CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A CA 92324 (909) 370-4667 FAX (909) 370-1046
 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1844
 South 51st St., Suite B-120, Phoenix, AZ 85044 (602) 785-0043 FAX (602) 785-0051
 Esapeke Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

012002

CHAIN OF CUSTODY FORM

Page 1 of 1

Name/Address: ENVIRONMENTAL INC, N. 44TH ST., SUITE 110, DENIX, AZ
 Project/PO Number: ESTES LANDFILL, 669 9030
 Analysis Required

Manager: JOHN MIEHEL
 Phone Number: (602) 244-1192
 Patricia A. DROBAT
 Fax Number: (602) 244-9280
 JEFF MARTIN

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required							Special Instructions		
						B260 VOC	B270 SVOC	ORGANOCHLORINE PESTICIDES 8081	8082 PCB	ORGANOPHOSPHORUS PESTICIDES 8141	CHLORINATED HERBICIDES 8151	MEALS / HCL 6010/7471		TRC	WALKLEY-BLACK
TRIP BLANK	AQ	VOA	1	5-11-99	HCl	1	/	/	/	/	/	/	/	/	
B12(6W/55)(5-20-99)	AQ	VARIES	13	5-20-99 0950	VOA-HCl METALS-HNO3	2	2	2	2	2	2	1	/	/	
B39(S/55)(5-20-99)	SOIL	ENCORE BRASS	3	5-20-99 1416	CHILL	1	2	/	/	/	/	/	/	/	
B12(S/45)(5-20-99)	SOIL	ENCORE BRASS	3	5-20-99 840	CHILL	1	2	/	/	/	/	/	/	/	
B12(S/3A)(5-20-99)	SOIL	ENCORE BRASS	3	5-20-99 0816	CHILL	1	2	/	/	/	/	/	/	/	
B12(S/50)(5-20-99)	SOIL	ENCORE BRASS	2	5-20-99 0851	CHILL	1	/	/	/	/	/	/	1	/	
B13(S/40)(5-20-99)	SOIL	ENCORE BRASS	3	5-20-99 1415	CHILL	1	2	/	/	/	/	/	/	/	
B38(S/50)(5-20-99)	SOIL	ENCORE BRASS	3	5-20-99 1218	CHILL	1	2	/	/	/	/	/	/	/	
B13(S/50)(5-20-99)	SOIL	ENCORE BRASS	3	5-20-99 1434	CHILL	1	2	/	/	/	/	/	/	/	
B37(S/25)(5-20-99)	SOIL	ENCORE BRASS	2	5-20-99 1507	CHILL	1	1	/	/	/	/	/	/	/	
B13(6W/60)(5-20-99)	AQ	VARIES	13	5-20-99 1525	VOA HCl METALS HNO3	2	2	2	2	2	2	1	/	/	
P BLANK	AQ	VOA	1	5-11-99	HCl	1	/	/	/	/	/	/	/	/	

Quished By: [Signature] Date/Time: 5-20-99 1604
 Received by: [Signature] Date/Time: 5/20/99 1606
 Turnaround Time: (Check) same day 72 hours
 24 hours 5 days
 48 hours normal
 Quished By: [Signature] Date/Time: 5-20-99 1632
 Received by: [Signature] Date/Time: 5/20/99 1632
 Sample Integrity: (Check) Intact on ice

By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

CHAIN OF CUSTODY FORM

Client Name/Address: **QST**
26 N. 44TH ST #110
PHOENIX, AZ

Project/PO Number: **ESTES LAND FILL**
6699030

Project Manager: **JOHN MIEHEK**

Phone Number: **602 244 1192**

Analyst: **JEFF MARTIN**

Fax Number: **244-9280**

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required								Special Instructions		
						VOC'S	TC	METHOD WALKLEY-BLACK	METHOD 8270	METHODS 6010/7471	METHOD 8081	METHOD 8082	METHOD 8141		METHOD 8151	
26-(5/40)-5-24-99	SOIL	VACIES	2	5-24-99 10:55	NONE	X	X									
26-(5/50)-5-24-99	SOIL	"	2	5-24-99 15:10	"	X	X									
25-(5/35)-5-24-99	SOIL	VACIES	3	5-24-99 12:01		X		X	X	X	X	X	X			
25-(5/45)-5-24-99	SOIL	"	3	5-24-99 14:24		X		X	X	X	X	X	X			

Relinquished By: JEFF MARTIN	Date /Time: 5-24-99 1600	Received by: [Signature]	Date /Time: 5/24/99 1600	Turnaround Time: (Check) same day _____ 72 hours _____ 24 hours _____ 5 days _____ 48 hours _____ normal ✓
Relinquished By: [Signature]	Date /Time: 5/24/99 1621	Received by: [Signature]	Date /Time: 5/25/99 1621	
Relinquished By: [Signature]	Date /Time: _____	Received in Lab by: [Signature]	Date /Time: 5/25/99 1621	Sample Integrity: (Check) intact ✓ on ice d

By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

CHAIN OF CUSTODY FORM

Quote #: _____ Page 1 of _____

Client Name/Address: BEST ENVIRONMENTAL, INC. 126 N. 44TH ST. SUITE 110 PHOENIX, ARIZONA			Project/PO Number: ESTERES LANDFILL 66A 9030			Analysis Required												Special Instructions			
Project Manager: JOHN MIETEK			Phone Number: (602) 244-1192			0260 VOC	0270 SVOC	ORGANIC SULFONE 8081 PESTICIDES	8082 PCB	ORGANOPHOSPHORUS 0141 PESTICIDES	CHLORINATED 0151 HERBICIDES	METALS / Hg 6010 / 7471	TDC	WATER/BLACK							
Analyst: PATRICIA A. DEBOAT			Fax Number:																		
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives																
TRIP BLANK	AQ	VQA	1		HCl	1															
1346-(6W/50)-5-25-99	AQ	VARIES	13	5-25-99 09:30	VARIES	X	X	X	X	X	X	X									
260-(5/73)-5-25-99	SOIL	BRASS	1	5-25-99 11:55	NONE									X							
Relinquished By: JEFF MARTIN			Date /Time: 5-25-99 15:45			Received by: Doug Richards			Date /Time: 5/25/99 15:45			Turnaround Time: (Check)									
Relinquished By: Doug Richards			Date /Time: 5/25/99 16:15			Received by:			Date /Time:			same day _____ 72 hours _____									
Relinquished By:			Date /Time:			Received in Lab by: M. Vilchinsky			Date /Time: 5-25-99 16:15			24 hours _____ 5 days _____									
Relinquished By:			Date /Time:									48 hours _____ normal <u>X</u>									
Relinquished By:			Date /Time:									Sample Integrity: (Check)									
Relinquished By:			Date /Time:									intact <u>X</u> on ice <u>X</u>									

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

CHAIN OF CUSTODY FORM

Quote #: _____ Page 1 of 2

Client Name/Address:
QST ENVIRONMENTAL, INC.
426 N. 44TH ST, SUITE 110
PHOENIX, AZ

Project/PO Number:
ESTEB LANDFILL
669 9030

Project Manager: **JOHN MIETEK**

Phone Number:
(602) 244-1192

Sampler: **PATRICIA A. DROBAT**

Fax Number:

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required											Special Instructions	
						8260 VOC	8270 SVOC	CHLORINATED HERBICIDES 8151	ORGANOCHLORINE PESTICIDES 8081	ORGANO PHOSPHORUS PESTICIDES 8141	METALS/MERCURY 6010 / 7471	8082 PCB						
TRIP BLANK	AQ	VCA	1	5-5-99	HCl	1	/	/	/	/	/	/						
BT-850 (GW/45) (5-26-99)	AQ	WVES	13	5-26-99 1024	HCl - van HNO ₃ - METALS	2	2	2	2	2	1	2						
EW-24 (S/40) (5-26-99)	SOIL	EXCISE BRASS	3	5-26-99 0827	CHILL	1	2											
EW-24 (S/50) (5-26-99)	SOIL	EXCISE BRASS	3	5-26-99 0904	CHILL	1	2											

Relinquished By: *John C. Mietek* Date / Time: **5/26/99 1502**

Received by: _____ Date / Time: _____

Turnaround Time: (Check)
 same day _____ 72 hours _____
 24 hours _____ 5 days _____
 48 hours _____ normal

Relinquished By: _____ Date / Time: _____

Received by: _____ Date / Time: _____

Relinquished By: _____ Date / Time: _____

Received in Lab by: *She Leggett* Date / Time: **5/26/99 1502**

Sample Integrity: (Check)
 intact _____ on ice _____

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Report Number: PIE00188

Sampled: May 4-5, 1999
 Received: May 5, 1999
 Extracted: May 6-14, 1999
 Analyzed: May 7-18, 1999
 Reported: May 18, 1999

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PIE00188	QST-B1-(S/37.5) -(5-5-99)	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00189	QST-B1-(S/54) -(5-5-99)	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00190	QST-B4-(S/35) -(5-4-99)	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00191	QST-B4-(S/49) -(5-4-99)	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00192	QST-B1-(S/48) -(5-5-99)	Soil	Walkly Black Method
PIE00193	QST-B1-(S/65) -(5-5-99)	Soil	Walkly Black Method

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation. Soil volatiles were submitted in brass sleeve sample containers.

HOLDING TIMES: Holding times were met.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All analyses met method criteria.

OBSERVATIONS: No significant observations were made.

SUBCONTRACTED: The 8141A & 8151 analysis was performed at APPL. The TOC analysis was performed at Columbia Analytical Services. Results are attached.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)


 Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B1-(S/37.5)-(5-5-99)
 Lab Number: PIE00188

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 18, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	56%
Decachlorobiphenyl (30-130).....	83%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B1-(S/54)-(5-5-99)
 Lab Number: PIE00189

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 18, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	74%
Decachlorobiphenyl (30-130).....	83%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

ST Environmental
426 N. 44th St., Suite 110
Phoenix, AZ 85008
Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill

Sample Descript: Soil, QST-B4(S/35)-(5-4-99)
Lab Number: PIE00190

Sampled: May 4, 1999
Received: May 5, 1999
Extracted: May 12, 1999
Analyzed: May 13, 1999
Reported: May 18, 1999

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9889
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851


ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)


Robyn Rice
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	74%
Decachlorobiphenyl (30-130).....	79%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B4(S/49)-(5-4-99)
 Lab Number: PIE00191

Sampled: May 4, 1999
 Received: May 5, 1999
 Extracted: May 12, 1999
 Analyzed: May 13, 1999
 Reported: May 18, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)		$\mu\text{g/Kg}$ (ppb)
Aldrin.....	8.0	.....	N.D.
alpha-BHC.....	8.0	.....	N.D.
beta-BHC.....	8.0	.....	N.D.
delta-BHC.....	16	.....	N.D.
gamma-BHC (Lindane).....	8.0	.....	N.D.
Chlordane.....	160	.....	N.D.
4,4'-DDD.....	8.0	.....	N.D.
4,4'-DDE.....	8.0	.....	N.D.
4,4'-DDT.....	8.0	.....	N.D.
Dieldrin.....	8.0	.....	N.D.
Endosulfan I.....	8.0	.....	N.D.
Endosulfan II.....	8.0	.....	N.D.
Endosulfan sulfate.....	32	.....	N.D.
Endrin.....	8.0	.....	N.D.
Endrin aldehyde.....	8.0	.....	N.D.
Heptachlor.....	8.0	.....	N.D.
Heptachlor epoxide.....	8.0	.....	N.D.
Methoxychlor.....	8.0	.....	N.D.
Toxaphene.....	320	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to low sample volume, the sample required dilution. Reporting limits for this sample have been raised by a factor of 1.6.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	74%
Decachlorobiphenyl (30-130).....	85%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B1-(S/37.5)-(5-5-99)
 Lab Number: PIE00188

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 18, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)			$\mu\text{g/Kg}$ (ppb)
Aroclor 1016.....	50	.....	N.D.
Aroclor 1221.....	50	.....	N.D.
Aroclor 1232.....	50	.....	N.D.
Aroclor 1242.....	50	.....	N.D.
Aroclor 1248.....	50	.....	N.D.
Aroclor 1254.....	50	.....	N.D.
Aroclor 1260.....	50	.....	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

R.F.
 Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	77%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B1-(S/54)-(5-5-99)
 Lab Number: PIE00189

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 18, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)			$\mu\text{g/Kg}$ (ppb)
Aroclor 1016.....	50	.....	N.D.
Aroclor 1221.....	50	.....	N.D.
Aroclor 1232.....	50	.....	N.D.
Aroclor 1242.....	50	.....	N.D.
Aroclor 1248.....	50	.....	N.D.
Aroclor 1254.....	50	.....	N.D.
Aroclor 1260.....	50	.....	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	86%

Robyn Rice P.P.
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

ST Environmental
426 N. 44th St., Suite 110
Phoenix, AZ 85008
Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill

Sample Descript: Soil, QST-B4(S/35)-(5-4-99)
Lab Number: PIE00190

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4867 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Sampled: May 4, 1999
Received: May 5, 1999
Extracted: May 12, 1999
Analyzed: May 12, 1999
Reported: May 18, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)			$\mu\text{g/Kg}$ (ppb)
Aroclor 1016.....	50	.....	N.D.
Aroclor 1221.....	50	.....	N.D.
Aroclor 1232.....	50	.....	N.D.
Aroclor 1242.....	50	.....	N.D.
Aroclor 1248.....	50	.....	N.D.
Aroclor 1254.....	50	.....	N.D.
Aroclor 1260.....	50	.....	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	68%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B4(S/49)-(5-4-99)
 Lab Number: PIE00191

Sampled: May 4, 1999
 Received: May 5, 1999
 Extracted: May 12, 1999
 Analyzed: May 12, 1999
 Reported: May 18, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)		$\mu\text{g/Kg}$ (ppb)
Aroclor 1016.....	80	.....	N.D.
Aroclor 1221.....	80	.....	N.D.
Aroclor 1232.....	80	.....	N.D.
Aroclor 1242.....	80	.....	N.D.
Aroclor 1248.....	80	.....	N.D.
Aroclor 1254.....	80	.....	N.D.
Aroclor 1260.....	80	.....	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to low sample volume, the sample required dilution. Reporting limits for this sample have been raised by a factor of 1.6.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	79%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B1-(S/37.5)-(5-5-99)
 Lab Number: PIE00188

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 6, 1999
 Analyzed: May 7, 1999
 Reported: May 18, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene....	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	87%
Toluene-d8 (50-135).....	94%
4-Bromofluorobenzene (70-130).....	91%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B1-(S/54)-(5-5-99)
 Lab Number: PIE00189

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 6, 1999
 Analyzed: May 7, 1999
 Reported: May 18, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene....	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	78%
Toluene-d8 (50-135).....	83%
4-Bromofluorobenzene (70-130).....	81%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B4(S/35)-(5-4-99)
 Lab Number: PIE00190

Sampled: May 4, 1999
 Received: May 5, 1999
 Extracted: May 6, 1999
 Analyzed: May 11, 1999
 Reported: May 18, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene....	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	95%
Toluene-d8 (50-135).....	96%
4-Bromofluorobenzene (70-130).....	93%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B4(S/49)-(5-4-99)
 Lab Number: PIE00191

Sampled: May 4, 1999
 Received: May 5, 1999
 Extracted: May 6, 1999
 Analyzed: May 7, 1999
 Reported: May 18, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropane.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene....	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	76%
Toluene-d8 (50-135).....	82%
4-Bromofluorobenzene (70-130).....	78%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

ST Environmental
426 N. 44th St., Suite 110
Phoenix, AZ 85008
Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
Sample Descript: Soil, QST-B1-(S/37.5)-(5-5-99)
Lab Number: PIE00188

Sampled: May 5, 1999
Received: May 5, 1999
Extracted: May 7, 1999
Analyzed: May 10, 1999
Reported: May 18, 1999

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	200	N.D.	Dimethyl phthalate.....	200	N.D.
Acenaphthylene.....	200	N.D.	4,6-Dinitro-2-methylphenol.....	500	N.D.
Aniline.....	300	N.D.	2,4-Dinitrophenol.....	500	N.D.
Anthracene.....	200	N.D.	2,4-Dinitrotoluene.....	200	N.D.
Azobenzene.....	300	N.D.	2,6-Dinitrotoluene.....	200	N.D.
Benzidine.....	2,000	N.D.	Di-N-octyl phthalate.....	1,000	N.D.
Benzoic Acid.....	1,000	N.D.	Fluoranthene.....	200	N.D.
Benz(a)anthracene.....	200	N.D.	Fluorene.....	200	N.D.
Benzo(b)fluoranthene.....	400	N.D.	Hexachlorobenzene.....	200	N.D.
Benzo(k)fluoranthene.....	400	N.D.	Hexachlorobutadiene.....	200	N.D.
Benzo(g,h,i)perylene.....	300	N.D.	Hexachlorocyclopentadiene.....	1,000	N.D.
Benzo(a)pyrene.....	300	N.D.	Hexachloroethane.....	400	N.D.
Benzyl alcohol.....	400	N.D.	Indeno(1,2,3-cd)pyrene.....	400	N.D.
Bis(2-chloroethoxy)methane.....	200	N.D.	Isophorone.....	200	N.D.
Bis(2-chloroethyl)ether.....	200	N.D.	2-Methylnaphthalene.....	200	N.D.
Bis(2-chloroisopropyl)ether.....	200	N.D.	2-Methylphenol.....	300	N.D.
Bis(2-ethylhexyl)phthalate.....	2,000	N.D.	4-Methylphenol.....	300	N.D.
4-Bromophenyl phenyl ether.....	300	N.D.	Naphthalene.....	300	N.D.
Butyl benzyl phthalate.....	1,000	N.D.	2-Nitroaniline.....	400	N.D.
4-Chloroaniline.....	200	N.D.	3-Nitroaniline.....	400	N.D.
2-Chloronaphthalene.....	200	N.D.	4-Nitroaniline.....	1,000	N.D.
4-Chloro-3-methylphenol.....	200	N.D.	Nitrobenzene.....	1,000	N.D.
2-Chlorophenol.....	500	N.D.	2-Nitrophenol.....	200	N.D.
4-Chlorophenyl phenyl ether.....	200	N.D.	4-Nitrophenol.....	1,000	N.D.
Chrysene.....	200	N.D.	N-Nitrosodiphenylamine.....	400	N.D.
Dibenz(a,h)anthracene.....	200	N.D.	N-Nitroso-di-N-propylamine.....	300	N.D.
Dibenzofuran.....	200	N.D.	Pentachlorophenol.....	1,000	N.D.
Di-N-butyl phthalate.....	500	N.D.	Phenanthrene.....	200	N.D.
1,3-Dichlorobenzene.....	200	N.D.	Phenol.....	300	N.D.
1,4-Dichlorobenzene.....	200	N.D.	Pyrene.....	300	N.D.
1,2-Dichlorobenzene.....	200	N.D.	1,2,4-Trichlorobenzene.....	200	N.D.
3,3-Dichlorobenzidine.....	1,000	N.D.	2,4,5-Trichlorophenol.....	300	N.D.
2,4-Dichlorophenol.....	200	N.D.	2,4,6-Trichlorophenol.....	300	N.D.
Diethyl phthalate.....	200	N.D.			
2,4-Dimethylphenol.....	500	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	95%
Phenol-d6 (24-113).....	97%
2,4,6-Tribromophenol (19-122).....	105%
Nitrobenzene-d5 (23-120).....	95%
2-Fluorobiphenyl (30-115).....	92%
Terphenyl-d14 (18-137).....	99%

Robyn Rice
Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B1-(S/54)-(5-5-99)
 Lab Number: PIE00189

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 7, 1999
 Analyzed: May 10, 1999
 Reported: May 18, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	200	N.D.	Dimethyl phthalate.....	200	N.D.
Acenaphthylene.....	200	N.D.	4,6-Dinitro-2-methylphenol.....	500	N.D.
Aniline.....	300	N.D.	2,4-Dinitrophenol.....	500	N.D.
Anthracene.....	200	N.D.	2,4-Dinitrotoluene.....	200	N.D.
Azobenzene.....	300	N.D.	2,6-Dinitrotoluene.....	200	N.D.
Benzidine.....	2,000	N.D.	Di-N-octyl phthalate.....	1,000	N.D.
Benzoic Acid.....	1,000	N.D.	Fluoranthene.....	200	N.D.
Benz(a)anthracene.....	200	N.D.	Fluorene.....	200	N.D.
Benzo(b)fluoranthene.....	400	N.D.	Hexachlorobenzene.....	200	N.D.
Benzo(k)fluoranthene.....	400	N.D.	Hexachlorobutadiene.....	200	N.D.
Benzo(g,h,i)perylene.....	300	N.D.	Hexachlorocyclopentadiene.....	1,000	N.D.
Benzo(a)pyrene.....	300	N.D.	Hexachloroethane.....	400	N.D.
Benzyl alcohol.....	400	N.D.	Indeno(1,2,3-cd)pyrene.....	400	N.D.
Bis(2-chloroethoxy)methane.....	200	N.D.	Isophorone.....	200	N.D.
Bis(2-chloroethyl)ether.....	200	N.D.	2-Methylnaphthalene.....	200	N.D.
Bis(2-chloroisopropyl)ether.....	200	N.D.	2-Methylphenol.....	300	N.D.
Bis(2-ethylhexyl)phthalate.....	2,000	N.D.	4-Methylphenol.....	300	N.D.
4-Bromophenyl phenyl ether.....	300	N.D.	Naphthalene.....	300	N.D.
Butyl benzyl phthalate.....	1,000	N.D.	2-Nitroaniline.....	400	N.D.
4-Chloroaniline.....	200	N.D.	3-Nitroaniline.....	400	N.D.
2-Chloronaphthalene.....	200	N.D.	4-Nitroaniline.....	1,000	N.D.
4-Chloro-3-methylphenol.....	200	N.D.	Nitrobenzene.....	1,000	N.D.
2-Chlorophenol.....	500	N.D.	2-Nitrophenol.....	200	N.D.
4-Chlorophenyl phenyl ether.....	200	N.D.	4-Nitrophenol.....	1,000	N.D.
Chrysene.....	200	N.D.	N-Nitrosodiphenylamine.....	400	N.D.
Dibenz(a,h)anthracene.....	200	N.D.	N-Nitroso-di-N-propylamine.....	300	N.D.
Dibenzofuran.....	200	N.D.	Pentachlorophenol.....	1,000	N.D.
Di-N-butyl phthalate.....	500	N.D.	Phenanthrene.....	200	N.D.
1,3-Dichlorobenzene.....	200	N.D.	Phenol.....	300	N.D.
1,4-Dichlorobenzene.....	200	N.D.	Pyrene.....	300	N.D.
1,2-Dichlorobenzene.....	200	N.D.	1,2,4-Trichlorobenzene.....	200	N.D.
3,3-Dichlorobenzidine.....	1,000	N.D.	2,4,5-Trichlorophenol.....	300	N.D.
2,4-Dichlorophenol.....	200	N.D.	2,4,6-Trichlorophenol.....	300	N.D.
Diethyl phthalate.....	200	N.D.			
2,4-Dimethylphenol.....	500	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	94%
Phenol-d6 (24-113).....	96%
2,4,6-Tribromophenol (19-122).....	98%
Nitrobenzene-d5 (23-120).....	97%
2-Fluorobiphenyl (30-115).....	94%
Terphenyl-d14 (18-137).....	96%

Robyn Rice
 Project Manager



ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 ESTES Landfill

Sample Descript: Soil, QST-B4(S/35)-(5-4-99)
 Lab Number: PIE00190

Sampled: May 4, 1999
 Received: May 5, 1999
 Extracted: May 8, 1999
 Analyzed: May 10, 1999
 Reported: May 18, 1999

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	200	N.D.	Dimethyl phthalate.....	200	N.D.
Acenaphthylene.....	200	N.D.	4,6-Dinitro-2-methylphenol.....	500	N.D.
Aniline.....	300	N.D.	2,4-Dinitrophenol.....	500	N.D.
Anthracene.....	200	N.D.	2,4-Dinitrotoluene.....	200	N.D.
Azobenzene.....	300	N.D.	2,6-Dinitrotoluene.....	200	N.D.
Benzidine.....	2,000	N.D.	Di-N-octyl phthalate.....	1,000	N.D.
Benzoic Acid.....	1,000	N.D.	Fluoranthene.....	200	N.D.
Benz(a)anthracene.....	200	N.D.	Fluorene.....	200	N.D.
Benzo(b)fluoranthene.....	400	N.D.	Hexachlorobenzene.....	200	N.D.
Benzo(k)fluoranthene.....	400	N.D.	Hexachlorobutadiene.....	200	N.D.
Benzo(g,h,i)perylene.....	300	N.D.	Hexachlorocyclopentadiene.....	1,000	N.D.
Benzo(a)pyrene.....	300	N.D.	Hexachloroethane.....	400	N.D.
Benzyl alcohol.....	400	N.D.	Indeno(1,2,3-cd)pyrene.....	400	N.D.
Bis(2-chloroethoxy)methane.....	200	N.D.	Isophorone.....	200	N.D.
Bis(2-chloroethyl)ether.....	200	N.D.	2-Methylnaphthalene.....	200	N.D.
Bis(2-chloroisopropyl)ether.....	200	N.D.	2-Methylphenol.....	300	N.D.
Bis(2-ethylhexyl)phthalate.....	2,000	N.D.	4-Methylphenol.....	300	N.D.
4-Bromophenyl phenyl ether.....	300	N.D.	Naphthalene.....	300	N.D.
Butyl benzyl phthalate.....	1,000	N.D.	2-Nitroaniline.....	400	N.D.
4-Chloroaniline.....	200	N.D.	3-Nitroaniline.....	400	N.D.
2-Chloronaphthalene.....	200	N.D.	4-Nitroaniline.....	1,000	N.D.
4-Chloro-3-methylphenol.....	200	N.D.	Nitrobenzene.....	1,000	N.D.
2-Chlorophenol.....	500	N.D.	2-Nitrophenol.....	200	N.D.
4-Chlorophenyl phenyl ether.....	200	N.D.	4-Nitrophenol.....	1,000	N.D.
Chrysene.....	200	N.D.	N-Nitrosodiphenylamine.....	400	N.D.
Dibenz(a,h)anthracene.....	200	N.D.	N-Nitroso-di-N-propylamine.....	300	N.D.
Dibenzofuran.....	200	N.D.	Pentachlorophenol.....	1,000	N.D.
Di-N-butyl phthalate.....	500	N.D.	Phenanthrene.....	200	N.D.
1,3-Dichlorobenzene.....	200	N.D.	Phenol.....	300	N.D.
1,4-Dichlorobenzene.....	200	N.D.	Pyrene.....	300	N.D.
1,2-Dichlorobenzene.....	200	N.D.	1,2,4-Trichlorobenzene.....	200	N.D.
3,3-Dichlorobenzidine.....	1,000	N.D.	2,4,5-Trichlorophenol.....	300	N.D.
2,4-Dichlorophenol.....	200	N.D.	2,4,6-Trichlorophenol.....	300	N.D.
Diethyl phthalate.....	200	N.D.			
2,4-Dimethylphenol.....	500	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	64%
Phenol-d6 (24-113).....	64%
2,4,6-Tribromophenol (19-122).....	64%
Nitrobenzene-d5 (23-120).....	58%
2-Fluorobiphenyl (30-115).....	66%
Terphenyl-d14 (18-137).....	56%

Robyn Rice
 Project Manager



ST Environmental
426 N. 44th St., Suite 110
Phoenix, AZ 85008
Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill

Sample Descript: Soil, QST-B4(S/49)-(5-4-99)
Lab Number: PIE00191

Sampled: May 4, 1999
Received: May 5, 1999
Extracted: May 8, 1999
Analyzed: May 10, 1999
Reported: May 18, 1999

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	200	N.D.	Dimethyl phthalate.....	200	N.D.
Acenaphthylene.....	200	N.D.	4,6-Dinitro-2-methylphenol.....	500	N.D.
Aniline.....	300	N.D.	2,4-Dinitrophenol.....	500	N.D.
Anthracene.....	200	N.D.	2,4-Dinitrotoluene.....	200	N.D.
Azobenzene.....	300	N.D.	2,6-Dinitrotoluene.....	200	N.D.
Benzidine.....	2,000	N.D.	Di-N-octyl phthalate.....	1,000	N.D.
Benzoic Acid.....	1,000	N.D.	Fluoranthene.....	200	N.D.
Benz(a)anthracene.....	200	N.D.	Fluorene.....	200	N.D.
Benzo(b)fluoranthene.....	400	N.D.	Hexachlorobenzene.....	200	N.D.
Benzo(k)fluoranthene.....	400	N.D.	Hexachlorobutadiene.....	200	N.D.
Benzo(g,h,i)perylene.....	300	N.D.	Hexachlorocyclopentadiene.....	1,000	N.D.
Benzo(a)pyrene.....	300	N.D.	Hexachloroethane.....	400	N.D.
Benzyl alcohol.....	400	N.D.	Indeno(1,2,3-cd)pyrene.....	400	N.D.
Bis(2-chloroethoxy)methane.....	200	N.D.	Isophorone.....	200	N.D.
Bis(2-chloroethyl)ether.....	200	N.D.	2-Methylnaphthalene.....	200	N.D.
Bis(2-chloroisopropyl)ether.....	200	N.D.	2-Methylphenol.....	300	N.D.
Bis(2-ethylhexyl)phthalate.....	2,000	N.D.	4-Methylphenol.....	300	N.D.
4-Bromophenyl phenyl ether.....	300	N.D.	Naphthalene.....	300	N.D.
Butyl benzyl phthalate.....	1,000	N.D.	2-Nitroaniline.....	400	N.D.
4-Chloroaniline.....	200	N.D.	3-Nitroaniline.....	400	N.D.
2-Chloronaphthalene.....	200	N.D.	4-Nitroaniline.....	1,000	N.D.
4-Chloro-3-methylphenol.....	200	N.D.	Nitrobenzene.....	1,000	N.D.
2-Chlorophenol.....	500	N.D.	2-Nitrophenol.....	200	N.D.
4-Chlorophenyl phenyl ether.....	200	N.D.	4-Nitrophenol.....	1,000	N.D.
Chrysene.....	200	N.D.	N-Nitrosodiphenylamine.....	400	N.D.
Dibenz(a,h)anthracene.....	200	N.D.	N-Nitroso-di-N-propylamine.....	300	N.D.
Dibenzofuran.....	200	N.D.	Pentachlorophenol.....	1,000	N.D.
Di-N-butyl phthalate.....	500	N.D.	Phenanthrene.....	200	N.D.
1,3-Dichlorobenzene.....	200	N.D.	Phenol.....	300	N.D.
1,4-Dichlorobenzene.....	200	N.D.	Pyrene.....	300	N.D.
1,2-Dichlorobenzene.....	200	N.D.	1,2,4-Trichlorobenzene.....	200	N.D.
3,3-Dichlorobenzidine.....	1,000	N.D.	2,4,5-Trichlorophenol.....	300	N.D.
2,4-Dichlorophenol.....	200	N.D.	2,4,6-Trichlorophenol.....	300	N.D.
Diethyl phthalate.....	200	N.D.			
2,4-Dimethylphenol.....	500	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	98%
Phenol-d6 (24-113).....	98%
2,4,6-Tribromophenol (19-122).....	108%
Nitrobenzene-d5 (23-120).....	85%
2-Fluorobiphenyl (30-115).....	96%
Terphenyl-d14 (18-137).....	90%

Robyn Rice
Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Soil, QST-B1-(S/37.5)-(5-5-99)
 Lab Number: PIE00188

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 7-14, 1999
 Analyzed: May 10-14, 1999
 Reported: May 18, 1999

E.P.A. PRIORITY POLLUTANT METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Arsenic.....	EPA 6010B	5.0	8.4	05/07/99	05/10/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/07/99	05/14/99
Cadmium.....	EPA 6010B	0.50	1.4	05/07/99	05/10/99
Chromium.....	EPA 6010B	2.0	31	05/07/99	05/10/99
Copper.....	EPA 6010B	2.5	61	05/07/99	05/10/99
Lead.....	EPA 6010B	2.5	6.0	05/07/99	05/10/99
Mercury.....	EPA 7471A	0.020	0.027	05/14/99	05/14/99
Nickel.....	EPA 6010B	2.5	18	05/07/99	05/10/99
Selenium.....	EPA 6010B	10	N.D.	05/07/99	05/10/99
Silver.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99
Thallium.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Zinc.....	EPA 6010B	2.5	37	05/07/99	05/10/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



Del Mar Analytical

ST Environmental
426 N. 44th St., Suite 110
Phoenix, AZ 85008
Attention: John Miehler

Client Project ID: 6699030 ESTES Landfill
Sample Descript: Soil, QST-B1-(S/54)-(5-5-99)
Lab Number: PIE00189

Sampled: May 5, 1999
Received: May 5, 1999
Extracted: May 7-14, 1999
Analyzed: May 10-14, 1999
Reported: May 18, 1999

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

E.P.A. PRIORITY POLLUTANT METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	20*	N.D.	05/07/99	05/13/99
Arsenic.....	EPA 6010B	5.0	7.9	05/07/99	05/10/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/07/99	05/14/99
Cadmium.....	EPA 6010B	0.50	1.1	05/07/99	05/10/99
Chromium.....	EPA 6010B	2.0	32	05/07/99	05/10/99
Copper.....	EPA 6010B	2.5	38	05/07/99	05/10/99
Lead.....	EPA 6010B	2.5	5.0	05/07/99	05/10/99
Mercury.....	EPA 7471A	0.020	0.027	05/14/99	05/14/99
Nickel.....	EPA 6010B	2.5	16	05/07/99	05/10/99
Selenium.....	EPA 6010B	10	N.D.	05/07/99	05/10/99
Silver.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99
Thallium.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Zinc.....	EPA 6010B	2.5	24	05/07/99	05/10/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00188.QST <19 of 29>



ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill

Sample Descript: Soil, QST-B4(S/35)-(5-4-99)
 Lab Number: PIE00190

Sampled: May 4, 1999
 Received: May 5, 1999
 Extracted: May 7-11, 1999
 Analyzed: May 10-14, 1999
 Reported: May 18, 1999

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

E.P.A. PRIORITY POLLUTANT METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Arsenic.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/07/99	05/14/99
Cadmium.....	EPA 6010B	0.50	0.93	05/07/99	05/10/99
Chromium.....	EPA 6010B	2.0	19	05/07/99	05/10/99
Copper.....	EPA 6010B	2.5	33	05/07/99	05/10/99
Lead.....	EPA 6010B	2.5	4.0	05/07/99	05/10/99
Mercury.....	EPA 7471A	0.020	N.D.	05/11/99	05/11/99
Nickel.....	EPA 6010B	2.5	12	05/07/99	05/10/99
Selenium.....	EPA 6010B	10	N.D.	05/07/99	05/10/99
Silver.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99
Thallium.....	EPA 6010B	20*	N.D.	05/07/99	05/13/99
Zinc.....	EPA 6010B	2.5	22	05/07/99	05/10/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill

Sample Descript: Soil, QST-B4(S/49)-(5-4-99)
 Lab Number: PIE00191

Sampled: May 4, 1999
 Received: May 5, 1999
 Extracted: May 7-11, 1999
 Analyzed: May 10-13, 1999
 Reported: May 18, 1999

E.P.A. PRIORITY POLLUTANT METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Arsenic.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Beryllium.....	EPA 6010B	2.0*	N.D.	05/07/99	05/13/99
Cadmium.....	EPA 6010B	0.50	0.72	05/07/99	05/10/99
Chromium.....	EPA 6010B	2.0	22	05/07/99	05/10/99
Copper.....	EPA 6010B	2.5	43	05/07/99	05/10/99
Lead.....	EPA 6010B	2.5	8.7	05/07/99	05/10/99
Mercury.....	EPA 7471A	0.020	N.D.	05/11/99	05/11/99
Nickel.....	EPA 6010B	2.5	11	05/07/99	05/10/99
Selenium.....	EPA 6010B	10	N.D.	05/07/99	05/10/99
Silver.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99
Thallium.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Zinc.....	EPA 6010B	2.5	29	05/07/99	05/10/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 18, 1999
 Matrix: Soil

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	82%
Decachlorobiphenyl (30-130).....	88%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 12, 1999
 Analyzed: May 13, 1999
 Reported: May 18, 1999
 Matrix: Soil

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g}/\text{Kg}$ (ppb)			$\mu\text{g}/\text{Kg}$ (ppb)
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	91%
Decachlorobiphenyl (30-130).....	98%



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 18, 1999
 Matrix: Soil

POLYCHLORINATED BIPHENYLS by GC (EPA 3550/8082)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)		$\mu\text{g/Kg}$ (ppb)
Aroclor 1016.....	50	.....	N.D.
Aroclor 1221.....	50	.....	N.D.
Aroclor 1232.....	50	.....	N.D.
Aroclor 1242.....	50	.....	N.D.
Aroclor 1248.....	50	.....	N.D.
Aroclor 1254.....	50	.....	N.D.
Aroclor 1260.....	50	.....	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	88%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 12, 1999
 Analyzed: May 12, 1999
 Reported: May 18, 1999
 Matrix: Soil

POLYCHLORINATED BIPHENYLS by GC (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	50	N.D.
Aroclor 1221.....	50	N.D.
Aroclor 1232.....	50	N.D.
Aroclor 1242.....	50	N.D.
Aroclor 1248.....	50	N.D.
Aroclor 1254.....	50	N.D.
Aroclor 1260.....	50	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	77%

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 6, 1999
 Analyzed: May 7, 1999
 Reported: May 18, 1999
 Matrix: Soil

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene....	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	84%
Toluene-d8 (50-135).....	91%
4-Bromofluorobenzene (70-130).....	85%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 7, 1999
 Analyzed: May 10, 1999
 Reported: May 18, 1999
 Matrix: Soil

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	76%
Phenol-d6 (24-113).....	80%
2,4,6-Tribromophenol (19-122).....	79%
Nitrobenzene-d5 (23-120).....	80%
2-Fluorobiphenyl (30-115).....	85%
Terphenyl-d14 (18-137).....	87%

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 8, 1999
 Analyzed: May 10, 1999
 Reported: May 18, 1999
 Matrix: Soil

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	78%
Phenol-d6 (24-113).....	80%
2,4,6-Tribromophenol (19-122).....	81%
Nitrobenzene-d5 (23-120).....	73%
2-Fluorobiphenyl (30-115).....	86%
Terphenyl-d14 (18-137).....	75%



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 7-14, 1999
 Analyzed: May 10-14, 1999
 Reported: May 18, 1999
 Matrix: Soil

E.P.A. PRIORITY POLLUTANT METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/07/99	May 10-13, 1999
Arsenic.....	EPA 6010B	5.0	N.D.	05/07/99	05/10/99
Beryllium.....	EPA 6010B	0.50	N.D.	05/07/99	May 13-14, 1999
Cadmium.....	EPA 6010B	0.50	N.D.	05/07/99	05/10/99
Chromium.....	EPA 6010B	2.0	N.D.	05/07/99	05/10/99
Copper.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99
Lead.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99
Mercury.....	EPA 7471A	0.020	N.D.	May 11-14, 1999	May 11-14, 1999
Nickel.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99
Selenium.....	EPA 6010B	10	N.D.	05/07/99	05/10/99
Silver.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99
Thallium.....	EPA 6010B	5.0	N.D.	05/07/99	May 10-13, 1999
Zinc.....	EPA 6010B	2.5	N.D.	05/07/99	05/10/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 8081A
 Matrix: Soil
 Instrument: GC

Date: 5/11/99
 Sample #: IE00782
 Batch #: IE11PE1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
DDE	220	20	249	246	145%	130%	1%	50	20-145
DDD	0	20	40.6	38.9	203%	195%	4%	30	50-130
DDT	0	20	55.3	54.8	277%	274%	1%	30	20-160

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD 8081

DATE: 5/11/99

Analyte

DDE
 DDD
 DDT

<u>St</u> ppb	<u>LCS</u> ppb	<u>PR</u> %
20	20.1	101%
20	19.1	96%
20	21.9	110%

Definition of Terms:

- St.** Standard Concentration
- LCS.** Laboratory Control Sample Result
- PR.** Percent Recovery of LCS; $(LCS/St) \times 100$

QA/QC CRITERIA: QA/QC is within acceptance limits.

Del Mar Analytical



MS/MSD DATA REPORT

EPA Method: 8081A
 Matrix: Soil
 Instrument: GC

Date: 5/13/99
 Sample #: LCS/LCSD
 Batch #: IE12PE1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
DDE	0	20	18.6	17.5	93%	88%	6%	50	20-145
DDD	0	20	20.4	18.8	102%	94%	8%	30	50-130
DDT	0	20	22.6	21.3	113%	107%	6%	30	20-160

LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

- QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



Del Mar Analytical

GC CALIBRATION CHECK CRITERIA

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Method: 8081A
 QC Batch: E13 #10

Associated Samples: PIE00188

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
D-BHC	1	117

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

GC CALIBRATION CHECK CRITERIA

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Method: 8081A
QC Batch: #18

Associated Samples: PIE00188

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
D-BHC	2	84
Dieldrin	1	117

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



MS/MSD DATA REPORT

EPA Method: 8082 (PCB's only)
 Matrix: Soil
 Instrument: GC

Date: 5/11/99
 Sample #: IE00907
 Batch #: IE11PE1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
PCB 1016 (Arochlor)	0	160	136	150	85%	94%	10%	50	60-140
PCB 1260 (Arochlor)	0	160	122	138	76%	86%	12%	50	60-140

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



MS/MSD DATA REPORT

EPA Method: 8082 (PCB's only)
 Matrix: Soil
 Instrument: GC

Date: 5/12/99
 Sample #: IE00786
 Batch #: IE12PE1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
PCB 1016 (Arochlor)	0	160	145	91.6	91%	57%	45%	50	60-140
PCB 1260 (Arochlor)	0	160	130	99.1	81%	62%	27%	50	60-140

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C 11 Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD 8082

DATE: 5/12/99
 Sample: IE12PE1S

Analyte	St	LCS	PR
	ppb	ppb	%
Aroclor 1016	160	140	88%
Aroclor 1260	160	135	84%

Definition of Terms:

- St. Standard Concentration
- LCS. Laboratory Control Sample Result
- PR. Percent Recovery of LCS; (LCS/St) X 100

QA/QC CRITERIA: QA/QC is within acceptance limits.

Del Mar Analytical



MS/MSD DATA REPORT

EPA Method: 8260B
 Matrix: Soil
 Instrument: GCMS

Date: 05/07/99
 Sample #: PIE00189
 Batch #: IE06MS1S

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	RPD	PR1/PR2
	ppb	ppb	ppb	ppb	%	%	%	%	%
Vinyl Chloride	0.0	500	170	173	34%	35%	1.7%	≤ 112	0-100%
1,1-Dichloroethene	0.0	500	410	435	82%	87%	5.9%	≤ 20	70-125%
1,1-Dichloroethane	0.0	500	403	432	81%	86%	6.9%	≤ 20	75-115%
Chloroform	0.0	500	395	421	79%	84%	6.4%	≤ 26	75-120%
1,2-Dichloroethane	0.0	500	377	400	75%	80%	5.9%	≤ 20	70-115%
Benzene	0.0	500	431	456	86%	91%	5.6%	≤ 20	80-120%
Trichloroethene	0.0	500	401	430	80%	86%	7.0%	≤ 20	75-120%
Toluene	0.0	500	405	433	81%	87%	6.7%	≤ 20	80-125%
Tetrachloroethene	0.0	500	387	405	77%	81%	4.5%	≤ 20	75-120%
Chlorobenzene	0.0	500	405	427	81%	85%	5%	≤ 20	75-115%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Determined by Control Charts

QA/QC Criteria..... All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

EPA Method: 8270B
 Matrix: Soil
 Instrument: GCMS

Date: 05/10/99
 Sample #: IE00623
 Batch #: IE07SE1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
Phenol	0.0	50.0	56.0	58.0	112%	116%	4%	20	30-95
2-Chlorophenol	0.0	50.0	52.0	56.0	104%	112%	7%	25	30-100
1,4-Dichlorobenzene	0.0	50.0	47.0	53.0	94%	106%	12%	30	25-90
N-Nitroso-di-n-propylamine	0.0	50.0	54.0	64.0	108%	128%	17%	20	35-100
1,2,4-Trichlorobenzene	0.0	50.0	57.0	57.0	114%	114%	0%	25	30-95
4-Chloro-3-methylphenol	0.2	50.0	58.0	60.0	116%	120%	3%	25	40-110
acenaphthene	0.1	50.0	55.0	56.0	110%	112%	2%	15	35-105
2,4-Dinitrotoluene	0.3	50.0	59.0	59.0	117%	117%	0%	20	35-110
4-Nitrophenol	2.1	50.0	70.0	71.0	136%	138%	1%	25	15-135
Pentachlorophenol	0.0	50.0	65.0	70.0	130%	140%	7%	30	30-115
Pyrene	0.1	50.0	50.0	56.0	100%	112%	11%	25	30-140

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS: ((MS-R1)/SP) x 100
- PR2..... Percent Recovery of MSD: ((MSD-R1)/SP) x 100
- RPD..... Relative Percent Difference: ((MS-MSD)/(MS+MSD)/2) x 100
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 6525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 8270

DATE: 5/10/99

Analyte	St	R1	PR
	ppb	ppb	%
Phenol	50	47	94%
2-Chlorophenol	50	46	92%
1,4-Dichlorobenzene	50	42	84%
n-Nitroso-di-n-propylamine	50	49	98%
1,2,4-Trichlorobenzene	50	45	90%
4-Chloro-3-Methylphenol	50	49	98%
Acenaphthene	50	49	98%
2,4-Dinitrotoluene	50	52	104%
4-Nitrophenol	50	56	112%
Pentachlorophenol	50	62	124%
ene	50	51	102%

Definition of Terms:

St. Total of standard added to sample

R1..... Standard Result

PR..... Percent Recovery

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical



MS/MSD DATA REPORT

EPA Method: 8270B
 Matrix: Soil
 Instrument: GCMS

Date: 05/10/99
 Sample #: IE00751
 Batch #: IE08SE1S

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Phenol	0.0	50.0	50.0	43.0	100%	86%	15%	20	30-95
2-Chlorophenol	0.0	50.0	50.0	45.0	100%	90%	11%	25	30-100
1,4-Dichlorobenzene	0.0	50.0	46.0	40.0	92%	80%	14%	30	25-90
N-Nitroso-di-n-propylamine	0.0	50.0	57.0	49.0	114%	98%	15%	20	35-100
1,2,4-Trichlorobenzene	0.0	50.0	49.0	43.0	98%	86%	13%	25	30-95
4-Chloro-3-methylphenol	0.0	50.0	56.0	50.0	112%	100%	11%	25	40-110
acenaphthene	0.1	50.0	59.0	56.0	118%	112%	5%	15	35-105
2,4-Dinitrotoluene	0.1	50.0	60.0	59.0	120%	118%	2%	20	35-110
4-Nitrophenol	0.3	50.0	70.0	69.0	139%	137%	1%	25	15-135
Pentachlorophenol	0.0	50.0	62.0	61.0	124%	122%	2%	30	30-115
Pyrene	0.0	50.0	60.0	61.0	120%	122%	2%	25	30-140

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



LABORATORY CONTROL SAMPLE

EPA METHOD: 8270

DATE: 5/10/99

Analyte	St	R1	PR
	ppb	ppb	%
Phenol	50	46	92%
2-Chlorophenol	50	46	92%
1,4-Dichlorobenzene	50	44	88%
n-Nitroso-di-n-propylamine	50	48	96%
1,2,4-Trichlorobenzene	50	47	94%
4-Chloro-3-Methylphenol	50	54	108%
Acenaphthene	50	51	102%
2,4-Dinitrotoluene	50	52	104%
4-Nitrophenol	50	58	116%
Pentachlorophenol	50	57	114%
ene	50	50	100%

Definition of Terms:

St. Total of standard added to sample

R1. Standard Result

PR. Percent Recovery

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical



MS/MSD DATA REPORT

METHOD: 6010B
INSTRUMENT: ICP
MATRIX: Soil

Date: 5/10/99
Sample #: PID01616

Analyte								MEAN
	R1	SP	MS	MSD	PR1	PR2	RPD	PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony	0	50.0	9.40	4.37	19%	9%	73.1%	14%
Arsenic	0	50.0	56.7	57.4	113%	115%	1.2%	114%
Beryllium	0	50.0	50.8	50.3	102%	101%	1.0%	101%
Cadmium	1.8	50.0	50.6	51.4	98%	99%	1.6%	98%
Chromium	22.6	50.0	72.2	73.3	99%	101%	1.5%	100%
Copper	37.7	50.0	105	86.3	135%	97%	19.6%	116%
Lead	12.4	50.0	60.4	60.9	96%	97%	0.8%	97%
Nickel	25.7	50.0	71.6	72.9	92%	94%	1.8%	93%
Selenium	0	50.0	40.5	40.6	81%	81%	0.2%	81%
Silver	0	50.0	52.1	40.7	104%	81%	24.6%	93%
Thallium	0	50.0	45.7	42.3	91%	85%	7.7%	88%
Zinc	76.9	50.0	120	119	86%	84%	0.8%	85%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1) / SP) X 100
- PR2..... Percent Recovery of MSD; ((MSD-R1) / SP) X 100
- RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

3852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

DATE: 5/10/99

Analyte	St	R1	PR
	ppm	ppm	%
Antimony	50.0	47.6	95%
Copper	50.0	47.3	95%

Definition of Terms:

- St. Standard Concentration
- R1. Standard Result
- PR. Percent Recovery of R1; (R1/St) X 100
- Acceptance Limits LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

EPA Method: 7471A
 Matrix: Soil
 Instrument: N/A

Date: 05/14/99
 Sample #: PIE00259
 Batch #: IE14HG1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppm	ppm	ppm	ppm	%	%	%	RPD	PR1/PR2
Mercury	0.154	0.333	0.417	0.419	79%	80%	0%	≤ 20	85-115%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 930 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LCS DATA REPORT

METHOD: 7471A
 MATRIX : Soil

DATE: 5/14/99

Analyte	Sp	LCS	PR
	ppm	ppm	%
Mercury	0.00200	0.00198	99%

Definition of Terms:

- Sp..... Standard Concentration
- LCS..... Laboratory Control Sample Result
- PR..... Percent Recovery of LCS; (LCS/Sp) X 100

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical



MS/MSD DATA REPORT

EPA Method: 7471A
 Matrix: Soil
 Instrument: N/A

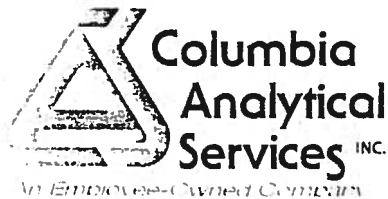
Date: 05/11/99
 Sample #: PIE00209
 Batch #: IE11HG1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppm	ppm	ppm	ppm	%	%	%	RPD	PR1/PR2
Mercury	0	0.333	0.294	0.310	88%	93%	5%	≤ 20	85-115%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

- QA/QC Criteria..... All QA/QC was within acceptance limits.



May 17, 1999

Service Request No: K9902861

Robyn Rice
Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, AZ 85044

Re: PIE00188.QST

Dear Robyn:

Enclosed are the results of the sample(s) submitted to our laboratory on May 7, 1999. For your reference, these analyses have been assigned our service request number K9902861.

All analyses were performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions. My extension is 280.

Respectfully submitted,

Columbia Analytical Services, Inc.

Les Kennedy
Project Chemist

LK/klg

Page 1 of 6

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
J	Estimated concentration. The value is less than the method reporting limit, but greater than the method detection limit.
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NAN	Not Analyzed
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected at or above the MRL
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

00002

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Del Mar Analytical
Project: PIE00188.QST
Sample Matrix: Soil

Service Request: K9902861
Date Collected: 5/5/99
Date Received: 5/7/99
Date Extracted: NA
Date Analyzed: 5/13/99

Carbon, Total Organic
OSU Walkly Black Method
Units: PERCENT
As Received Basis

Sample Name	Lab Code	MRL	Result
PIE00192	K9902861-001	0.05	0.11
PIE00193	K9902861-002	0.05	0.12
Method Blank	K9902861-MB	0.05	ND

Approved By: MMR Date: 5/14/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Del Mar Analytical
Project: PIE00188.QST
Sample Matrix: Soil

Service Request: K9902861
Date Collected: 5/5/99
Date Received: 5/7/99
Date Extracted: NA
Date Analyzed: 5/13/99

Duplicate Summary
Carbon, Total Organic
OSU Walkly Black Method
Units: PERCENT
As Received Basis

Sample Name	Lab Code	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
PIE00192	K9902861-001DUP	0.05	0.11	0.11	0.11	ND

Approved By: MMR Date: 5/14/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Del Mar Analytical
Project: PIE00188.QST
LCS Matrix: Soil

Service Request: K9902861
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 5/13/99

Laboratory Control Sample Summary
Carbon, Total Organic
OSU Walkly Black Method
Units: PERCENT

Analyte	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Walkly Black	0.62	0.57	92	85-115

Approved By: mmr

Date: 5/14/99

LCS/102194

2861WET LJ1 - LCS 5/14/99

Page No.:

00005



May 18, 1999

Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, Arizona 85044
Attn: Robyn Rice

Report of Laboratory Results: ARF number: 30225

Dear Ms. Rice:

Four water samples for Project Number 'PIE00188.QST' were received May 07, 1999, in good condition. Written results are being provided on this May 18, 1999, for the requested analyses. All holding times were met. No unusual problems or complications were encountered with this sample set.

Sample Table

Sample Description	Del Mar ID	APPL Inc. ID	Sample Date
Soil	PIE00188	78711s	05/05/99
Soil	PIE00189	78712s	05/05/99
Soil	PIE00190	78713s	05/05/99
Soil	PIE00191	78714s	05/05/99

If you have any questions or require further information, please contact us at your convenience. Thank you for choosing APPL, Inc.

Sincerely,

Mike Ray, Laboratory Director
APPL, Inc.

MR/mr
Enclosure
cc: File

EPA 8141 OP Pesticides

Del Mar Analytical
830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice
Project: PIE00188.QST
Sample ID: PIE00188
Sample Collection Date: 5/5/99

ARF: 30225
APPL ID AP78711
QCG: \$8141S-990510AS-16517

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/10/99	5/12/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Def	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/10/99	5/12/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/10/99	5/12/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/10/99	5/12/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Surrogate: Tributylphosphate	102	51-154	%	5/10/99	5/12/99
EPA 8141	Surrogate: Triphenylphosphate	108	63-151	%	5/10/99	5/12/99

Run #: 510088,106
Instrument: NPD03
Sequence: 990510
Dilution Factor: 1,2
Initials: FML

EPA 8141 OP Pesticides

Del Mar Analytical
 3830 South 51st. St., Ste B-120
 Phoenix, AZ 85044

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Attn: Robyn Rice
 Project: PIE00188.QST

ARF: 30225

Sample ID: PIE00189

APPL ID AP78712

Sample Collection Date: 5/5/99

QCG: \$8141S-990510AS-16517

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/10/99	5/12/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Def	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/10/99	5/12/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/10/99	5/12/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/10/99	5/12/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Surrogate: Tributylphosphate	108	51-154	%	5/10/99	5/12/99
EPA 8141	Surrogate: Triphenylphosphate	115	63-151	%	5/10/99	5/12/99

Run #: 510089,107
Instrument: NPD03
Sequence: 990510
Dilution Factor: 1,2
Initials: FML

Printed: 5/18/99 1:11:39 PM

EPA 8141 OP Pesticides

Del Mar Analytical
830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice
Project: PIE00188.QST
Sample ID: PIE00190
Sample Collection Date: 5/4/99

ARF: 30225
APPL ID AP78713
QCG: \$8141S-990510AS-16517

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/10/99	5/12/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Def	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/10/99	5/12/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/10/99	5/12/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/10/99	5/12/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Strophanthos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Surrogate: Tributylphosphate	108	51-154	%	5/10/99	5/12/99
EPA 8141	Surrogate: Triphenylphosphate	115	63-151	%	5/10/99	5/12/99

Run #: 510092.108
Instrument: NPD03
Sequence: 990510
Dilution Factor: 1,2
Initials: FML

Printed: 5/18/99 1:11:39 PM

EPA 8141 OP Pesticides

Del Mar Analytical
830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice
Project: PIE00188.QST

ARF: 30225

Sample ID: PIE00191

APPL ID AP78714

Sample Collection Date: 5/4/99

QCG: \$8141S-990510AS-16517

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/10/99	5/12/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Def	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/10/99	5/12/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/10/99	5/12/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/10/99	5/12/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/10/99	5/12/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/10/99	5/12/99
EPA 8141	Surrogate: Tributylphosphate	110	51-154	%	5/10/99	5/12/99
EPA 8141	Surrogate: Triphenylphosphate	117	63-151	%	5/10/99	5/12/99

Run #: 510093,109
Instrument: NPD03
Sequence: 990510
Dilution Factor: 1,2
Initials: FML

Printed: 5/18/99 1:11:39 PM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
3830 South 51st. St., Ste B-120
Phoenix, AZ 85044

Attn: Robyn Rice
Project: PIE00188.QST
Sample ID: PIE00188
Sample Collection Date: 5/5/99

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

ARF: 30225
APPL ID AP78711
QCG: S8151S-990513SA-16619

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/13/99	5/17/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/13/99	5/17/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/13/99	5/17/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/13/99	5/17/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/17/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/17/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/13/99	5/17/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/13/99	5/17/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/17/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/17/99
EPA 8151	Surrogate recovery	114	93-141	%	5/13/99	5/17/99

Run #: 15
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 12:28:44 PM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice
Project: PIE00188.QST

ARF: 30225

Sample ID: PIE00189

APPL ID AP78712

Sample Collection Date: 5/5/99

QCG: S8151S-990513SA-16619

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/13/99	5/17/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/13/99	5/17/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/13/99	5/17/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/13/99	5/17/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/17/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/17/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/13/99	5/17/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/13/99	5/17/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/17/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/17/99
EPA 8151	Surrogate recovery	115	93-141	%	5/13/99	5/17/99

Run #: 16
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 12:28:45 PM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice
Project: PIE00188.QST
Sample ID: PIE00190
Sample Collection Date: 5/4/99

ARF: 30225
APPL ID AP78713
QCG: \$8151S-990513SA-16619

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/13/99	5/17/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/13/99	5/17/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/13/99	5/17/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/13/99	5/17/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/17/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/17/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/13/99	5/17/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/13/99	5/17/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/17/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/17/99
EPA 8151	Surrogate recovery	113	93-141	%	5/13/99	5/17/99

Run #: 17
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 12:28:45 PM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
1830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice
Project: PIE00188.QST
Sample ID: PIE00191
Sample Collection Date: 5/4/99

ARF: 30225
APPL ID AP78714
QCG: \$8151S-990513SA-16619

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/13/99	5/18/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/18/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Surrogate recovery	113	93-141	%	5/13/99	5/18/99

Run #: 18
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 12:28:45 PM

Method Blank
EPA 8141 OP Pesticides

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Blank Name/QCG: 990510S - 16517
Batch ID: S8141S-990510AS

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	Azinphosmethyl	Not detected	500	ug/kg	5/10/99	5/12/99
BLANK	Bolstar	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Chlorpyrifos	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Coumaphos	Not detected	100	ug/kg	5/10/99	5/12/99
BLANK	Def	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Demeton-s	Not detected	100	ug/kg	5/10/99	5/12/99
BLANK	Diazinon	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Dichlorvos	Not detected	100	ug/kg	5/10/99	5/12/99
BLANK	Dimethoate	Not detected	100	ug/kg	5/10/99	5/12/99
BLANK	Disulfoton	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	EPN	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Ethion	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Ethoprop	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Fensulfothion	Not detected	250	ug/kg	5/10/99	5/12/99
BLANK	Fenthion	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Malathion	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Merphos	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Mevinphos	Not detected	350	ug/kg	5/10/99	5/12/99
BLANK	Naled	Not detected	250	ug/kg	5/10/99	5/12/99
BLANK	Parathion, ethyl	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Parathion, methyl	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Phorate	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Prowl	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Ronnel	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Stirophos	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Sulfotep	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	TEPP	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Tokuthion	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Trichloronate	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Trifluralin	Not detected	50	ug/kg	5/10/99	5/12/99
BLANK	Surrogate: Tributylphosphate	96.9	51-154	%	5/10/99	5/12/99
BLANK	Surrogate: Triphenylphosphate	98.9	63-151	%	5/10/99	5/12/99

Run #: 510080
Instrument: NPD03
Sequence: 990510
Initials: FML

Laboratory Control Spike - LCS

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: **990510AS LCS**
Date/Initials: 5/13/99 FML
Extraction Date: 5/10/99
Matrix Type: SOIL
Units: ug/kg

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Phorate	83.3	*****	65.9	79.0
Diazinon	83.3	*****	90.3	108
Disulfoton	83.3	*****	79.3	95.1
Methyl parathion	83.3	*****	82.9	99.5
Stirophos	83.3	*****	94.5	113
Ethion	83.3	*****	70.2	84.3

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Tributyl phosphate	167	*****	169	101
Triphenyl phosphate	167	*****	173	104

	Prim Col	Sec Col
	Spike	Spike
Analysis Date:	5/12/99	
Analysis Time:	3:48 PM	
Instrument:	NPD03B	
Column:	DB-5	
Sample/Vial #:	81	
Extraction Ratio:	10/30	
Dilution Factor:	1	

Comments:

	Soil	Water
Phorate	26-98	22-96
Diazinon	61-139	57-130
Disulfoton	14-131	47-117
Meth Parathion	63-153	55-164
Stirophos	58-140	68-128
Ethion	66-131	65-134
Tributyl phosphate	51-154	60-150
Triphenyl phosphate	63-151	76-140

Matrix / Control Spike Recoveries

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: 78684S MS/MSD
Date/Initials: 5/13/99 FML
Extraction Date: 5/10/99
Matrix Type: SOIL
Units: ug/kg

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery	%RPD (See below)
Phorate	83.3	0.000	59.6	71.5	59.5	71.4	0.1
Diazinon	83.3	0.000	83.6	100	83.5	100	0.2
Disulfoton	83.3	0.000	68.2	81.8	70.6	84.7	3.5
Methyl parathion	83.3	0.000	75.3	90.4	74.6	89.5	1.0
Stirophos	83.3	0.000	86.6	104	87.1	104	0.5
Ethion	83.3	0.000	63.5	76.2	62.6	75.2	1.3

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery
Tributyl phosphate	167	*****	154	92.5	151	90.8
Triphenyl phosphate	167	*****	158	94.9	157	94.1

	Primary Column	
	Spike	Spk Dup
Analysis Date:	5/12/99	5/12/99
Analysis Time:	4:25 PM	5:02 PM
Instrument:	NPD03B	NPD03B
Column:	DB-5	DB-5
Sample/Vial #:	82	83
Extraction Ratio:	10/30	10/30
Dilution Factor:	1	1

Secondary Column	
Spike	Spk Dup

Comments:

	Soil	Water	Soil RPD	Water RPD
Phorate	26-98	22-96	21	24
Diazinon	61-139	57-130	24	21
Disulfoton	14-131	47-117	26	22
Meth Parathion	63-153	55-164	19	24
Stirophos	58-140	68-128	21	25
Ethion	66-131	65-134	36	20
Tributyl phosphate	51-154	60-150	NA	NA
Triphenyl phosphate	63-151	76-140	NA	NA

Method Blank
EPA 8151 HERBICIDE SOIL

Blank Name/QCG: **990513S - 16619**
Batch ID: **S8151S-990513SA**

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	2,4-D	Not detected	200	ug/kg	5/13/99	5/17/99
BLANK	Dalapon	Not detected	2000	ug/kg	5/13/99	5/17/99
BLANK	2,4-DB	Not detected	400	ug/kg	5/13/99	5/17/99
BLANK	Dicamba	Not detected	40	ug/kg	5/13/99	5/17/99
BLANK	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/17/99
BLANK	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/17/99
BLANK	MCPA	Not detected	40000	ug/kg	5/13/99	5/17/99
BLANK	MCPP	Not detected	40000	ug/kg	5/13/99	5/17/99
BLANK	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/17/99
BLANK	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/17/99
BLANK	Surrogate recovery	106	93-141	%	5/13/99	5/17/99

Run #: 11
Instrument: ECD01
Sequence: 990517
Initials: KW

Printed: 5/19/99 12:29:05 PM

Laboratory Control Spike Recovery
EPA 8151 HERBICIDE SOIL

APPL ID: 990513S-78683 LCS - 16619

Batch ID: S8151S-990513SA

APPL Inc.

4203 West Swift Avenue

Fresno, CA 93722

Compound Name	Spike Level ug/kg	SPK Result ug/kg	SPK % Recovery	Recovery Limits
2,4,5-T	200	195	97.5	77-148
2,4,5-TP	200	189	94.5	87-149
2,4-D	200	222	111	90-181
Dicamba	200	191	95.5	63-149
Dichlorprop (2,4-DP)	200	201	101	91-183
Dinoseb (DNBP)	200	195	97.5	71-167
Surrogate recovery	600	641	107	93-141

Comments: _____

Primary	SPK
Extraction Date :	5/13/99
Analysis Date :	5/17/99
Instrument :	ECD01
Run :	12
Analyst :	KW

Printed: 5/19/99 12:29:52 PM

Matrix Spike Recoveries

EPA 8151 HERBICIDE SOIL

APPL ID 990513S-78683 MS/MSD - 16619

Batch ID: S8151S-990513SA

APPL Inc.

4203 West Swift Avenue

Fresno, CA 93722

Compound Name	Spike Level ug/kg	Matrix Result ug/kg	SPK Result ug/kg	DUP Result ug/kg	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	200	ND	213	209	107	105	77-148	1.9	27
2,4,5-TP	200	ND	202	200	101	100	87-149	1.00	27
2,4-D	200	ND	251	247	126	124	90-181	1.6	27
Dicamba	200	ND	226	225	113	113	63-149	0.44	31
Dichlorprop (2,4-DP)	200	ND	213	210	107	105	91-183	1.4	37
Dinoseb (DNBP)	200	ND	267	253	134	127	71-167	5.4	NE
Surrogate recovery	600	NA	683	676	114	113	93-141		

NE = Not established.

Comments: _____

Primary	SPK	DUP
Extraction Date :	5/13/99	5/13/99
Analysis Date :	5/17/99	5/17/99
Instrument :	ECD01	ECD01
Run :	13	14
Analyst :	KW	

Printed: 5/19/99 12:30:12 PM

CHAIN OF CUSTODY FORM

Quote # _____ Page 1 of 1

Client Name/Address: QST Corp 420 N. 1st St. #1111 Phoenix, AZ 85004		Project/PO Number: L6771030 C510520000		Analysis Required																																							
Project Manager: Scott Williams		Phone Number: 602 244 1172		<table border="1"> <tr> <td>PCB</td> <td>Metals</td> <td>Asbestos</td> <td>PAHs</td> <td>Organics</td> <td>Trace Metals</td> <td>Microbiology</td> <td>Radon</td> <td>Lead</td> <td>Cadmium</td> <td>Chromium</td> <td>Mercury</td> <td>Other</td> <td>Special Instructions</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>												PCB	Metals	Asbestos	PAHs	Organics	Trace Metals	Microbiology	Radon	Lead	Cadmium	Chromium	Mercury	Other	Special Instructions														
PCB	Metals	Asbestos	PAHs													Organics	Trace Metals	Microbiology	Radon	Lead	Cadmium	Chromium	Mercury	Other	Special Instructions																		
Sampler: Scott Williams		Fax Number: 602 244 2230																																									
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	PCB	Metals	Asbestos	PAHs	Organics	Trace Metals	Microbiology	Radon	Lead	Cadmium	Chromium	Mercury	Other	Special Instructions																								
QST-B1 (5/25/01) (soil)	soil	100ml	3	5/25/01 08:00	None																																						
QST-B2 (5/25/01) (soil)	soil	100ml	5	5/25/01 08:15	None																																						
QST-B4 (5/25/01) (soil)	soil	100ml	1	5/25/01 08:30	None																																						
QST-B4 (5/25/01) (soil)	soil	100ml	2	5/25/01 08:45	None																																						
QST-B1 (5/25/01) (soil)	soil	100ml	2	5/25/01 08:30	None																																						
QST-B2 (5/25/01) (soil)	soil	100ml	1	5/25/01 08:45	None																																						
Relinquished By: [Signature]		Date /Time: [Date]		Received by: [Signature]		Date /Time: [Date]		Turnaround Time (Check)																																			
Relinquished By: [Signature]		Date /Time: [Date]		Received by: [Signature]		Date /Time: [Date]		same day _____ 72 hours <u>1224</u>																																			
Relinquished By: [Signature]		Date /Time: [Date]		Received in Lab by: [Signature]		Date /Time: [Date]		24 hours _____ 5 days _____																																			
Relinquished By: [Signature]		Date /Time: [Date]		Received in Lab by: [Signature]		Date /Time: [Date]		48 hours _____ normal _____																																			
Relinquished By: [Signature]		Date /Time: [Date]		Received in Lab by: [Signature]		Date /Time: [Date]		Sample Integrity (Check)																																			
Relinquished By: [Signature]		Date /Time: [Date]		Received in Lab by: [Signature]		Date /Time: [Date]		intact _____ on ice <u>✓</u>																																			

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days. COC-GB



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Report Number: PIE00194

Sampled: May 4-5, 1999
 Received: May 5, 1999
 Extracted: May 6-13, 1999
 Analyzed: May 7-13, 1999
 Revised: Jun 2, 1999

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PIE00194	QST-B4-(GW/78) -(5-5-99)	Water	8260B, 8270, 200.7, 245.1, 8081A, 8082, 8151 & 8141A
PIE00195	Trip Blank	Water	8260B
PIE00196	QST-B4-(S/25) -(5-4-99)	Soil	Walkly Black Method
PIE00197	QST-B4-(S/55) -(5-4-99)	Soil	Walkly Black Method

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: Method 8260B exceeded QA/QC acceptance limits. See Corrective Action Report. All other analyses met method criteria.

OBSERVATIONS: No significant observations were made.

SUBCONTRACTED: The 8141A & 8151 analysis was performed at APPL. The TOC analysis was performed at Columbia Analytical Services. Results are attached.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

RR
 Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B4-(GW/78)-(5-5-99)
 Lab Number: PIE00194

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 17, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)			µg/L (ppb)
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	61%
Decachlorobiphenyl (30-130).....	44%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 6525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, QST-B4-(GW/78)-(5-5-99)
 Lab Number: PIE00194

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 17, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	45%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B4-(GW/78)-(5-5-99)
 Lab Number: PIE00194

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 17, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	50	N.D.	1,3-Dichloropropane.....	10	N.D.
Benzene.....	10	N.D.	2,2-Dichloropropane.....	10	N.D.
Bromobenzene.....	25	N.D.	1,1-Dichloropropene.....	10	N.D.
Bromochloromethane.....	25	N.D.	cis-1,3-Dichloropropene.....	10	N.D.
Bromodichloromethane.....	10	N.D.	trans-1,3-Dichloropropene...	10	N.D.
Bromoform.....	25	N.D.	Ethylbenzene.....	10	N.D.
Bromomethane.....	25	N.D.	Hexachlorobutadiene.....	25	N.D.
2-Butanone (MEK).....	50	N.D.	2-Hexanone.....	50	N.D.
n-Butylbenzene.....	25	N.D.	Iodomethane.....	10	N.D.
sec-Butylbenzene.....	25	N.D.	Isopropylbenzene.....	10	N.D.
tert-Butylbenzene.....	25	N.D.	p-Isopropyltoluene.....	10	N.D.
Carbon Disulfide.....	25	N.D.	Methylene chloride.....	50	N.D.
Carbon tetrachloride.....	25	N.D.	4-Methyl-2-pentanone (MIBK).....	25	N.D.
Chlorobenzene.....	10	28	Methyl-tert-butyl ether (MTBE).....	25	N.D.
Chloroethane.....	25	N.D.	Naphthalene.....	25	N.D.
2-Chloroethyl vinyl ether.....	25	N.D.	n-Propylbenzene.....	10	N.D.
Chloroform.....	10	N.D.	Styrene.....	10	N.D.
Chloromethane.....	25	N.D.	1,1,1,2-Tetrachloroethane...	25	N.D.
2-Chlorotoluene.....	25	N.D.	1,1,2,2-Tetrachloroethane...	10	N.D.
4-Chlorotoluene.....	25	N.D.	Tetrachloroethene.....	10	N.D.
Dibromochloromethane.....	10	N.D.	Toluene.....	10	N.D.
1,2-Dibromo-3-chloropropane.....	25	N.D.	1,2,3-Trichlorobenzene.....	25	N.D.
1,2-Dibromoethane (EDB).....	10	N.D.	1,2,4-Trichlorobenzene.....	25	N.D.
Dibromomethane.....	10	N.D.	1,1,1-Trichloroethane.....	10	N.D.
1,2-Dichlorobenzene.....	10	21	1,1,2-Trichloroethane.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Trichloroethene.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Trichlorofluoromethane.....	25	N.D.
Dichlorodifluoromethane.....	25	N.D.	1,2,3-Trichloropropane.....	50	N.D.
1,1-Dichloroethane.....	10	N.D.	1,2,4-Trimethylbenzene.....	10	N.D.
1,2-Dichloroethane.....	10	N.D.	1,3,5-Trimethylbenzene.....	10	N.D.
1,1-Dichloroethene.....	25	N.D.	Vinyl acetate.....	25	N.D.
cis-1,2-Dichloroethene.....	10	60	Vinyl chloride.....	25	120
trans-1,2-Dichloroethene.....	10	N.D.	Xylenes (Total).....	50	N.D.
1,2-Dichloropropane.....	10	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	80%
Toluene-d8 (75-140).....	81%
4-Bromofluorobenzene (75-135).....	79%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

QST Environmental
26 N. 44th St., Suite 110
Phoenix, AZ 85008
Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, Trip Blank
Lab Number: PIE00195

Sampled: May 5, 1999
Received: May 5, 1999
Extracted: May 7, 1999
Analyzed: May 7, 1999
Revised: Jun 21, 1999

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropane.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
1,2-Dichloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)


Robyn Rice
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	92%
Toluene-d8 (75-140).....	98%
4-Bromofluorobenzene (75-135).....	94%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B4-(GW/78)-(5-5-99)
 Lab Number: PIE00194

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 10, 1999
 Analyzed: May 12, 1999
 Reported: May 17, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	13	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine
 Analytes reported as N.D. were not present at or above the reporting limit.
 Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	72%
Phenol-d6 (40-115).....	81%
2,4,6-Tribromophenol (40-140).....	95%
Nitrobenzene-d5 (35-120).....	69%
2-Fluorobiphenyl (30-150).....	85%
Terphenyl-d14 (45-150).....	85%

Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B4-(GW/78)-(5-5-99)
 Lab Number: PIE00194

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 6-7, 1999
 Analyzed: May 7, 1999
 Reported: May 17, 1999

E.P.A. PRIORITY POLLUTANT METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Arsenic.....	EPA 200.7	0.050	0.053	05/06/99	05/07/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/06/99	05/07/99
Cadmium.....	EPA 200.7	0.0050	0.0058	05/06/99	05/07/99
Chromium.....	EPA 200.7	0.010	0.22	05/06/99	05/07/99
Copper.....	EPA 200.7	0.020	0.25	05/06/99	05/07/99
Lead.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Mercury.....	EPA 245.1	0.00020	N.D.	05/07/99	05/07/99
Nickel.....	EPA 200.7	0.050	0.14	05/06/99	05/07/99
Selenium.....	EPA 200.7	0.060	N.D.	05/06/99	05/07/99
Silver.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Thallium.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Zinc.....	EPA 200.7	0.050	0.13	05/06/99	05/07/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 17, 1999
 Matrix: Water

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)			µg/L (ppb)
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	84%
Decachlorobiphenyl (30-130).....	80%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 17, 1999
 Matrix: Water

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit	Sample Result
	µg/L (ppb)	
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Tetrachloro-m-xylene (30-130)....	94%
Decachlorobiphenyl (30-130).....	85%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 7, 1999
 Analyzed: May 7, 1999
 Revised: Jun 21, 1999
 Matrix: Water

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropane.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	92%
Toluene-d8 (75-140).....	93%
4-Bromofluorobenzene (75-135).....	90%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 17, 1999
 Matrix: Water

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	5.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	73%
Toluene-d8 (75-140).....	75%
4-Bromofluorobenzene (75-135).....	73%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 126 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 10, 1999
 Analyzed: May 12, 1999
 Reported: May 17, 1999
 Matrix: Water

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	81%
Phenol-d6 (40-115).....	86%
2,4,6-Tribromophenol (40-140).....	97%
Nitrobenzene-d5 (35-120).....	74%
2-Fluorobiphenyl (30-150).....	88%
Terphenyl-d14 (45-150).....	80%

Robyn Rice
 Project Manager

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 6-7, 1999
 Analyzed: May 7, 1999
 Reported: May 17, 1999
 Matrix: Water

E.P.A. PRIORITY POLLUTANT METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Arsenic.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/06/99	05/07/99
Cadmium.....	EPA 200.7	0.0050	N.D.	05/06/99	05/07/99
Chromium.....	EPA 200.7	0.010	N.D.	05/06/99	05/07/99
Copper.....	EPA 200.7	0.020	N.D.	05/06/99	05/07/99
Lead.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Mercury.....	EPA 245.1	0.00020	N.D.	05/07/99	05/07/99
Nickel.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Selenium.....	EPA 200.7	0.060	N.D.	05/06/99	05/07/99
Silver.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Thallium.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Zinc.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 8081
 Matrix: Water
 Instrument: GC

Date: 05/12/99
 Sample #: LCS/LCSD*
 Batch #: IE11PE1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
DDE	0	0.5	0.388	0.416	78%	83%	7%	≤ 50	60-140%
DDD	0	0.5	0.410	0.442	82%	88%	8%	≤ 50	60-140%
DDT	0	0.5	0.430	0.469	86%	94%	9%	≤ 50	60-140%

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provide

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) Please Note: This analysis was performed at Del Mar Analytical-Irvine (AZ04

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Water, QST-B1-(GW/70)-(5-5-99)
 Lab Number: PIE00186

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 10, 1999
 Analyzed: May 12, 1999
 Reported: May 18, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzdine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene..	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine..	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	71%
Phenol-d6 (40-115).....	80%
2,4,6-Tribromophenol (40-140).....	99%
Nitrobenzene-d5 (35-120).....	68%
2-Fluorobiphenyl (30-150).....	83%
Terphenyl-d14 (45-150).....	84%

Robyn Rice
 Project Manager



QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill

Sample Descript: Water, QST-B1-(GW/70)-(5-5-99)
 Lab Number: PIE00186

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 6-7, 1999
 Analyzed: May 7, 1999
 Reported: May 18, 1999

2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Arsenic.....	EPA 200.7	0.050	0.068	05/06/99	05/07/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/06/99	05/07/99
Cadmium.....	EPA 200.7	0.0050	0.0076	05/06/99	05/07/99
Chromium.....	EPA 200.7	0.010	0.25	05/06/99	05/07/99
Copper.....	EPA 200.7	0.020	1.5	05/06/99	05/07/99
Lead.....	EPA 200.7	0.050	0.076	05/06/99	05/07/99
Mercury.....	EPA 245.1	0.00020	0.00096	05/07/99	05/07/99
Nickel.....	EPA 200.7	0.050	0.17	05/06/99	05/07/99
Selenium.....	EPA 200.7	0.060	N.D.	05/06/99	05/07/99
Silver.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Thallium.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Zinc.....	EPA 200.7	0.050	0.18	05/06/99	05/07/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 18, 1999
 Matrix: Water

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit	Sample Result
	µg/L (ppb)	
Aldrin.....	0.10	N.D.
alpha-BHC.....	0.10	N.D.
beta-BHC.....	0.10	N.D.
delta-BHC.....	0.25	N.D.
gamma-BHC (Lindane).....	0.10	N.D.
Chlordane.....	2.0	N.D.
4,4'-DDD.....	0.10	N.D.
4,4'-DDE.....	0.10	N.D.
4,4'-DDT.....	0.10	N.D.
Dieldrin.....	0.10	N.D.
Endosulfan I.....	0.10	N.D.
Endosulfan II.....	0.10	N.D.
Endosulfan sulfate.....	0.50	N.D.
Endrin.....	0.10	N.D.
Endrin aldehyde.....	0.10	N.D.
Heptachlor.....	0.10	N.D.
Heptachlor epoxide.....	0.10	N.D.
Methoxychlor.....	0.10	N.D.
Toxaphene.....	4.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	84%
Decachlorobiphenyl (30-130).....	80%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 18, 1999
 Matrix: Water

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Tetrachloro-m-xylene (30-130)....	94%
Decachlorobiphenyl (30-130).....	85%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 6, 1999
 Analyzed: May 6, 1999
 Revised: Jun 21, 1999
 Matrix: Water

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	77%
Toluene-d8 (75-140).....	79%
4-Bromofluorobenzene (75-135).....	76%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 10, 1999
 Analyzed: May 12, 1999
 Reported: May 18, 1999
 Matrix: Water

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine
 Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	81%
Phenol-d6 (40-115).....	86%
2,4,6-Tribromophenol (40-140).....	97%
Nitrobenzene-d5 (35-120).....	74%
2-Fluorobiphenyl (30-150).....	88%
Terphenyl-d14 (45-150).....	80%

Robyn Rice
 Project Manager

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 6-7, 1999
 Analyzed: May 7, 1999
 Reported: May 18, 1999
 Matrix: Water

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Arsenic.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/06/99	05/07/99
Cadmium.....	EPA 200.7	0.0050	N.D.	05/06/99	05/07/99
Chromium.....	EPA 200.7	0.010	N.D.	05/06/99	05/07/99
Copper.....	EPA 200.7	0.020	N.D.	05/06/99	05/07/99
Lead.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Mercury.....	EPA 245.1	0.00020	N.D.	05/07/99	05/07/99
Nickel.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Selenium.....	EPA 200.7	0.060	N.D.	05/06/99	05/07/99
Silver.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Thallium.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99
Zinc.....	EPA 200.7	0.050	N.D.	05/06/99	05/07/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 4434 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-3689
 1830 South 51st St., Suite B-100, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 8081
 Matrix: Water
 Instrument: GC

Date: 05/12/99
 Sample #: LCS/LCSD*
 Batch #: IE11PE1W

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
DDE	0	0.5	0.388	0.416	78%	83%	7%	≤ 50	60-140%
DDD	0	0.5	0.410	0.442	82%	88%	8%	≤ 50	60-140%
DDT	0	0.5	0.430	0.469	86%	94%	9%	≤ 50	60-140%

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provide

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) Please Note: This analysis was performed at Del Mar Analytical-Irvine (AZ04



MS/MSD DATA REPORT

EPA Method: 8082 (PCB's only)
 Matrix: Water
 Instrument: GC

Date: 5/12/99
 Sample #: LCS/LCSD*
 Batch #: IE11PE1W

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
AR 1016	0	4.0	3.28	3.33	82%	83%	2%	≤ 50	60-140%
AR 1260	0	4.0	2.95	3.10	74%	78%	5%	≤ 50	60-140%

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



MS/MSD DATA REPORT

EPA Method: 8260B
 Matrix: Water
 Instrument: GCMS

Date: 05/06/99
 Sample #: PIE00186
 Batch #: IE06011W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD %	PR1/PR2 %
Vinyl Chloride	54.3	25	78.7	77.0	98%	91%	2%	≤ 20	45-170%
1,1-Dichloroethene	0.0	25	24.6	25.5	98%	102%	3.6%	≤ 20	70-130%
1,1-Dichloroethane	0.0	25	23.9	24.3	96%	97%	1.7%	≤ 20	80-135%
Chloroform	0.0	25	23.5	24.2	94%	97%	2.9%	≤ 20	80-135%
1,2-Dichloroethane	0.0	25	22.6	23.2	90%	93%	2.6%	≤ 20	80-130%
Benzene	0.0	25	25.2	26.1	101%	104%	3.5%	≤ 20	75-135%
Trichloroethene	0.0	25	23.7	24.0	95%	96%	1.3%	≤ 20	75-130%
Toluene	0.0	25	23.5	23.9	94%	96%	1.7%	≤ 20	75-135%
Tetrachloroethene	0.0	25	22.4	23.3	90%	93%	3.9%	≤ 20	70-135%
Chlorobenzene	5.55	25	28.8	29.5	93%	96%	2.4%	≤ 20	75-125%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1)/SP) x 100
- PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) x 100
- RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) x 100
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC was within acceptance limits.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1029
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 8270
 Matrix: Water
 Instrument: GCMS

Date: 05/12/99
 Sample #: LCS/LCSD*
 Batch #: IE10SE1W

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
Phenol	0.1	50.0	37.0	38.0	74%	76%	3%	15	40-110
2-Chlorophenol	0.0	50.0	38.0	40.0	76%	80%	5%	15	40-110
1,4-Dichlorobenzene	0.0	50.0	31.0	32.0	62%	64%	3%	15	35-110
N-Nitroso-di-n-propylamine	0.0	50.0	41.0	41.0	82%	82%	0%	20	45-120
1,2,4-Trichlorobenzene	0.0	50.0	34.0	34.0	68%	68%	0%	15	44-110
4-Chloro-3-methylphenol	0.0	50.0	43.0	44.0	86%	88%	2%	20	50-115
Acenaphthene	0.0	50.0	42.0	43.0	84%	86%	2%	15	50-115
2,4-Dinitrotoluene	0.0	50.0	45.0	47.0	90%	94%	4%	15	55-120
4-Nitrophenol	0.0	50.0	50.0	51.0	100%	102%	2%	15	45-120
Pentachlorophenol	0.0	50.0	51.0	52.0	102%	104%	2%	20	50-125
Pyrene	0.1	50.0	43.0	44.0	86%	88%	2%	25	70-120

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1)/SP) x 100
- PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) x 100
- RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) x 100
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426)

This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



MS/MSD DATA REPORT

EPA Method: 8082 (PCB's only)
 Matrix: Water
 Instrument: GC

Date: 5/12/99
 Sample #: LCS/LCSD*
 Batch #: IE11PE1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
								RPD	PR1/PR2
	ppb	ppb	ppb	ppb	%	%	%	%	%
AR 1016	0	4.0	3.28	3.33	82%	83%	2%	≤ 50	60-140%
AR 1260	0	4.0	2.95	3.10	74%	78%	5%	≤ 50	60-140%

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



Del Mar Analytical

GC CALIBRATION CHECK CRITERIA

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Method: 8081A
QC Batch: E12 #6

Associated Samples: PIE00194

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
B-BHC	2	73

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

GC CALIBRATION CHECK CRITERIA

2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Method: 8081A
 QC Batch: E12 #24

Associated Samples: PIE00194

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
B-BHC	2	74
D-BHC	1	125
Endrin Ketone	1	117

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



MS/MSD DATA REPORT

EPA Method: 8260B
 Matrix: Water
 Instrument: GCMS

Date: 05/11/99
 Sample #: PIE00264
 Batch #: IE11011W

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Vinyl Chloride	59.7	25	74.7	70.6	60%	44%	6%	≤ 20	45-170%
1,1-Dichloroethene	0.0	25	27.5	27.6	110%	110%	0.4%	≤ 20	70-130%
1,1-Dichloroethane	0.0	25	24.3	24.3	97%	97%	0.0%	≤ 20	80-135%
Chloroform	0.0	25	25.0	25.1	100%	100%	0.4%	≤ 20	80-135%
1,2-Dichloroethane	0.0	25	21.5	21.6	86%	86%	0.5%	≤ 20	80-130%
Benzene	0.0	25	29.0	28.9	116%	116%	0.3%	≤ 20	75-135%
Trichloroethene	2.8	25	26.2	27.4	94%	98%	4.5%	≤ 20	75-130%
Toluene	0.0	25	25.4	26.4	102%	106%	3.9%	≤ 20	75-135%
Tetrachloroethene	0.0	25	23.4	24.5	94%	98%	4.6%	≤ 20	70-135%
Chlorobenzene	4.5	25	28.2	28.6	95%	96%	1.4%	≤ 20	75-125%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1023
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 4484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 8260B

BATCH: IE11011W
 DATE: 5/11/99

Analyte	St	R1	PR	QC Limits
	ppb	ppb	%	%
Vinyl Chloride	25	25.7	103%	25-200
1,1-Dichloroethene	25	29.4	118%	55-165
1,1-Dichloroethane	25	24.5	98%	65-155
Chloroform	25	25.5	102%	65-150
1,2-Dichloroethane	25	21.4	86%	65-155
Benzene	25	29.4	118%	60-155
Trichloroethene	25	24.6	98%	60-150
Toluene	25	27.2	109%	65-155
Tetrachloroethene	25	24.2	97%	60-155
Chlorobenzene	25	24.3	97%	65-145

Definition of Terms:

St. Concentration standard added to sample

R1. Standard Result

PR. Percent Recovery

Del Mar Analytical



MS/MSD DATA REPORT

EPA Method: 8260B
 Matrix: Water
 Instrument: GCMS

Date: 05/07/99
 Sample #: PIE00194
 Batch #: IE07011W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Vinyl Chloride	211	25	192	199	0%	0%	3%	≤ 20	45-170%
1,1-Dichloroethene	0.0	25	25.7	26.9	103%	108%	4.6%	≤ 20	70-130%
1,1-Dichloroethane	0.0	25	24.8	25.7	99%	103%	3.6%	≤ 20	80-135%
Chloroform	0.0	25	24.3	24.9	97%	100%	2.4%	≤ 20	80-135%
1,2-Dichloroethane	0.0	25	23.4	24.1	94%	96%	2.9%	≤ 20	80-130%
Benzene	0.0	25	27.2	28.3	109%	113%	4.0%	≤ 20	75-135%
Trichloroethene	0.0	25	24.3	24.8	97%	99%	2.0%	≤ 20	75-130%
Toluene	0.0	25	24.4	24.5	98%	98%	0.4%	≤ 20	75-135%
Tetrachloroethene	0.0	25	23.4	23.8	94%	95%	1.7%	≤ 20	70-135%
Chlorobenzene	28.1	25	48.2	49.4	80%	85%	2.5%	≤ 20	75-125%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 18525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 8260B

BATCH: IE07011W
 DATE: 5/8/99

Analyte	St	R1	PR	QC Limits
	ppb	ppb	%	%
Vinyl Chloride	25	30.3	121%	25-200
1,1-Dichloroethene	25	26.3	105%	55-165
1,1-Dichloroethane	25	25.5	102%	65-155
Chloroform	25	25.4	102%	65-150
1,2-Dichloroethane	25	24.4	98%	65-155
Benzene	25	26.7	107%	60-155
Trichloroethene	25	24.6	98%	60-150
Toluene	25	25.0	100%	65-155
Tetrachloroethene	25	24.1	96%	60-155
Chlorobenzene	25	24.6	98%	65-145

Definition of Terms:

St. Concentration standard added to sample

R1. Standard Result

PR. Percent Recovery

Del Mar Analytical



MS/MSD DATA REPORT

EPA Method: 8270
 Matrix: Water
 Instrument: GCMS

Date: 05/12/99
 Sample #: LCS/LCSD*
 Batch #: IE10SE1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
Phenol	0.1	50.0	37.0	38.0	74%	76%	3%	15	40-110
2-Chlorophenol	0.0	50.0	38.0	40.0	76%	80%	5%	15	40-110
1,4-Dichlorobenzene	0.0	50.0	31.0	32.0	62%	64%	3%	15	35-110
N-Nitroso-di-n-propylamine	0.0	50.0	41.0	41.0	82%	82%	0%	20	45-120
1,2,4-Trichlorobenzene	0.0	50.0	34.0	34.0	68%	68%	0%	15	44-110
4-Chloro-3-methylphenol	0.0	50.0	43.0	44.0	86%	88%	2%	20	50-115
acenaphthene	0.0	50.0	42.0	43.0	84%	86%	2%	15	50-115
2,4-Dinitrotoluene	0.0	50.0	45.0	47.0	90%	94%	4%	15	55-120
4-Nitrophenol	0.0	50.0	50.0	51.0	100%	102%	2%	15	45-120
Pentachlorophenol	0.0	50.0	51.0	52.0	102%	104%	2%	20	50-125
Pyrene	0.1	50.0	43.0	44.0	86%	88%	2%	25	70-120

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1238
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/7/99
 Sample #: PIE00162

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony	0	1.0	0.982	1.06	98%	106%	7.6%	102%
Arsenic	0	1.0	0.941	1.04	94%	104%	10.0%	99%
Beryllium	0	1.0	0.959	0.998	96%	100%	4.0%	98%
Cadmium	0	1.0	0.918	0.950	92%	95%	3.4%	93%
Chromium	0	1.0	0.960	1.04	96%	104%	8.0%	100%
Copper	0.263	1.0	1.22	1.27	96%	101%	4.0%	98%
Lead	0	1.0	0.944	1.03	94%	103%	8.7%	99%
Nickel	0.101	1.0	0.983	1.01	88%	91%	2.7%	90%
Selenium	0	1.0	0.925	0.993	93%	99%	7.1%	96%
Silver	0	0.05	0.0519	0.0535	104%	107%	3.0%	105%
Thallium	0	1.0	0.898	0.921	90%	92%	2.5%	91%
Zinc	0	1.0	1.00	1.04	100%	104%	3.9%	102%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD/2)) \times 100$
- Acceptance Limits RPD: < or = 20%
 MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

EPA Method: 245.1
 Matrix: Water
 Instrument: N/A

Date: 05/07/99
 Sample #: PIE00128
 Batch #: IE07HG1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
								RPD	PR1/PR2
	ppm	ppm	ppm	ppm	%	%	%	%	%
Mercury	0	0.00500	0.00571	0.00572	114%	114%	0.2%	≤ 20	70-130%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC was within acceptance limit.



CORRECTIVE ACTION REPORT

Department: GC/MS Method: 8260B
Date: 05/11/99 Matrix: Water
Associated Samples: PIE00194, PIE00263-266, PIE00321-323, PIE00348-349
PIE00368-369, PIE00393-400

Identification and Definition of Problem:

The Method Blank analyzed in QC batch IE11011W had low recovery for surrogate 4-Bromofluorobenzene. 73% recovery is below the current control limits.

Determination of the Cause of the Problem:

Current Del Mar Analytical control limits are 75-130% for this surrogate. No cause could be determined for this one low recovery.

Corrective Action:

No further corrective action was taken because all associated sample recoveries were within control limits. Subsequent Method Blank surrogate recoveries were acceptable.

June Schaper: *June Schaper* Date: 6/1/99
Quality Assurance Manager



AGRICULTURE &
PRIORITY POLLUTANTS
LABORATORIES, INC.

4205 West Street ▼ Fresno, California 93722 ▼ Phone 209.275.2175 ▼ Fax 209.275.4422

May 18, 1999

Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, Arizona 85044
Attn: Robyn Rice

Report of Laboratory Results: ARF number: 30229

Dear Ms. Rice:

One water sample for Project Number 'PIE00194.QST' was received May 07, 1999, in good condition. Written results are being provided on this May 18, 1999, for the requested analyses. All holding times were met. No unusual problems or complications were encountered with this sample set.

Sample Table

Sample Description	Del Mar ID	APPL Inc. ID	Sample Date
Water	PIE00194	78715w	05/05/99

If you have any questions or require further information, please contact us at your convenience. Thank you for choosing APPL, Inc.

Sincerely,

Mike Ray, Laboratory Director
APPL, Inc.

MR/mr
Enclosure
cc: File

EPA 8141

Del Mar Analytical
3830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00194.QST

Sample ID: PIE00194

Sample Collection Date: 5/5/99

ARF: 30229

APPL ID AP78715

QCG: \$8141W-990510BW-1650

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	5.0	ug/L	5/10/99	5/11/99
EPA 8141	Bolstar	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Chlorpyrifos	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Coumaphos	Not detected	1.0	ug/L	5/10/99	5/11/99
EPA 8141	Def	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Demeton-s	Not detected	1.0	ug/L	5/10/99	5/11/99
EPA 8141	Diazinon	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Dichlorvos	Not detected	1.0	ug/L	5/10/99	5/11/99
EPA 8141	Dimethoate	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Disulfoton	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	EPN	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Ethion	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Ethoprop	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Fensulfothion	Not detected	2.5	ug/L	5/10/99	5/11/99
EPA 8141	Fenthion	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Malathion	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Merphos	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Mevinphos	Not detected	3.5	ug/L	5/10/99	5/11/99
EPA 8141	Naled	Not detected	2.5	ug/L	5/10/99	5/11/99
EPA 8141	Parathion, ethyl	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Parathion, methyl	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Phorate	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Prowi	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Ronnel	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Stirophos	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Sulfotep	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Tepp	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Tokuthion	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Trichloronate	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Trifluralin	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Surrogate: Tributylphosphate	88.0	60-150	%	5/10/99	5/11/99
EPA 8141	Surrogate: Triphenylphosphate	82.3	76-140	%	5/10/99	5/11/99

Run #: 510046
Instrument: NPD03
Sequence: 990510
Dilution Factor: 1
Initials: FML

EPA 8151 Herbicides

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

Attn: Robyn Rice
Project: PIE00194.QST
Sample ID: PIE00194
Sample Collection Date: 5/5/99

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

ARF: 30229
APPL ID AP78715
QCG: \$8151-990510WA-16566

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	0.50	ug/L	5/10/99	5/13/99
EPA 8151	Dalapon	Not detected	1.0	ug/L	5/10/99	5/13/99
EPA 8151	2,4-DB	Not detected	1.0	ug/L	5/10/99	5/13/99
EPA 8151	Dicamba	Not detected	0.10	ug/L	5/10/99	5/13/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/10/99	5/13/99
EPA 8151	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/10/99	5/13/99
EPA 8151	MCPA	Not detected	100	ug/L	5/10/99	5/13/99
EPA 8151	MCPP	Not detected	100	ug/L	5/10/99	5/13/99
EPA 8151	2,4,5-T	Not detected	0.10	ug/L	5/10/99	5/13/99
EPA 8151	2,4,5-TP	Not detected	0.10	ug/L	5/10/99	5/13/99
EPA 8151	Surrogate Recovery	82.8	61-120	%	5/10/99	5/13/99

Run #: 98
Instrument: ECD01
Sequence: 990510
Dilution Factor: 1
Initials: KW

Printed: 5/18/99 1:11:40 PM

Method Blank

EPA 8141

Blank Name/QCG: 990510W - 16503
 Batch ID: S8141W-990510BW

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	Azinphosmethyl	Not detected	5.0	ug/L	5/10/99	5/11/99
BLANK	Bolstar	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Chlorpyrifos	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Coumaphos	Not detected	1.0	ug/L	5/10/99	5/11/99
BLANK	Def	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Demeton-s	Not detected	1.0	ug/L	5/10/99	5/11/99
BLANK	Diazinon	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Dichlorvos	Not detected	1.0	ug/L	5/10/99	5/11/99
BLANK	Dimethoate	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Disulfoton	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	EPN	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Ethion	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Ethoprop	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Fensulfothion	Not detected	2.5	ug/L	5/10/99	5/11/99
BLANK	Fenthion	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Malathion	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Merphos	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Mevinphos	Not detected	3.5	ug/L	5/10/99	5/11/99
BLANK	Naled	Not detected	2.5	ug/L	5/10/99	5/11/99
BLANK	Parathion, ethyl	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Parathion, methyl	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Phorate	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Prowl	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Ronnel	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Stirophos	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Sulfotep	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Tepp	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Tokuthion	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Trichloronate	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Trifluralin	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Surrogate: Tributylphosphate	97.1	60-150	%	5/10/99	5/11/99
BLANK	Surrogate: Triphenylphosphate	95.2	76-140	%	5/10/99	5/11/99

Run #: 510042
Instrument: NPD03
Sequence: 990510

Matrix / Control Spike Recoveries

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: **990510BW LCS/LCSD**
Date/Initials: 5/12/99 FML
Extraction Date: 5/10/99
Matrix Type: Water
Units: ug/L

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery	%RPD (See below)
Phorate	2.50	0.00	1.54	61.4	1.80	72.0	16
Diazinon	2.50	0.00	2.22	88.8	2.64	106	17
Disulfoton	2.50	0.00	1.69	67.4	2.01	80.6	18
Methyl parathion	2.50	0.00	1.82	72.6	2.21	88.5	20
Stirophos	2.50	0.00	2.07	82.6	2.49	99.6	19
Ethion	2.50	0.00	1.62	64.7	1.92	76.8	17

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery
Tributyl phosphate	5.00	*****	4.08	81.6	4.77	95.4
Triphenyl phosphate	5.00	*****	4.00	80.0	4.78	95.5

	Primary Column		Secondary Column	
	Spike	Spk Dup	Spike	Spk Dup
Analysis Date:	5/11/99	5/11/99		
Analysis Time:	4:09 PM	4:46 PM		
Instrument:	NPD03B	NPD03B		
Column:	DB-5	DB-5		
Sample/Vial #:	43	44		
Extraction Ratio:	10/1000	10/1000		
Dilution Factor:	1	1		

Comments:

	Soil	Water	Soil RPD	Water RPD
Phorate	26-98	22-96	21	24
Diazinon	61-139	57-130	24	21
Disulfoton	14-131	47-117	26	22
Meth Parathion	63-153	55-164	19	24
Stirophos	58-140	68-128	21	25
Ethion	66-131	65-134	36	20
Tributyl phosphate	51-154	60-150	NA	NA
Triphenyl phosphate	63-151	76-140	NA	NA

Method Blank
EPA 8151 Herbicides

Blank Name/QCG: **990510W - 16566**
Batch ID: S8151-990510WA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	2,4-D	Not detected	0.50	ug/L	5/10/99	5/13/99
BLANK	Dalapon	Not detected	1.0	ug/L	5/10/99	5/13/99
BLANK	2,4-DB	Not detected	1.0	ug/L	5/10/99	5/13/99
BLANK	Dicamba	Not detected	0.10	ug/L	5/10/99	5/13/99
BLANK	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/10/99	5/13/99
BLANK	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/10/99	5/13/99
BLANK	MCPA	Not detected	100	ug/L	5/10/99	5/13/99
BLANK	MCPP	Not detected	100	ug/L	5/10/99	5/13/99
BLANK	2,4,5-T	Not detected	0.10	ug/L	5/10/99	5/13/99
BLANK	2,4,5-TP	Not detected	0.10	ug/L	5/10/99	5/13/99
BLANK	Surrogate recovery	100	61-120	%	5/10/99	5/13/99

Run #: 92
Instrument: ECD01
Sequence: 990510
Initials: KW

Laboratory Control Spike Recoveries

EPA 8151 Herbicides

APPL ID 990510W-78596 LCS/LCSD - 16566

Batch ID: \$8151-990510WA

APPL Inc.

4203 West Swift Avenue

Fresno, CA 93722

Compound Name	Spike Level ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	1.00	0.935	0.953	93.5	95.3	53-134	1.9	32
2,4,5-TP	1.00	0.888	0.896	88.8	89.6	60-118	0.90	24
2,4-D	1.00	1.11	1.15	111	115	44-155	3.5	15
Dicamba	1.00	1.00	1.02	100	102	48-102	2.0	24
Dichlorprop (2,4-DP)	1.00	0.967	0.992	96.7	99.2	37-146	2.6	18
Dinoseb (DNBP)	1.00	0.865	0.880	86.5	88.0	73-173	1.7	31
Surrogate: 2,4-DCAA	3.00	3.04	3.09	101	103	61-120		

Comments: _____

Primary	SPK	DUP
Extraction Date :	5/10/99	5/10/99
Analysis Date :	5/13/99	5/13/99
Instrument :	ECD01	ECD01
Run :	93	94
Analyst :	KW	

CHAIN OF CUSTODY FORM

Quote # _____ Page 1 of 1

Client Name/Address: QST ENVIRONMENTAL INC. 720 N. 44th St., Suite 100 P.O. Box 25			Project/PO Number: ESTER CAMPBELL 0077078			Analysis Required												
Project Manager: JOHN MESTER			Phone Number: 714 441 1172			VOL ELEG	SWOL SOTO	METALS, IIG 6000000000	ORGANIC-UL-NE RESIDUALS SCS	LABORATORY RESIDUALS	TCE PCE	POLYCYCLIC AROMATIC HYDROCARBONS (PAH)	TSS	WATER LEAK - DUTY	A	C	S	Special Instructions
Sampler: JENNIFER A. BROWN			Fax Number: 714 441 1200															
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives													
QST (1/13) (1-1)	AQ	1000	1	11/26 11:00 AM	NO PRESERVATIVE													initial 1/26
TRIP (1/13)	AQ	1000	2	11/26 11:00 AM	NO PRESERVATIVE													initial 1/26
QST (1/13) (1-2)	AQ	1000	2	11/26 11:00 AM	NO PRESERVATIVE													initial 1/26
TRIP (1/13) (1-2)	AQ	1000	2	11/26 11:00 AM	NO PRESERVATIVE													initial 1/26
Relinquished By:	Date /Time:			Received by:	Date /Time:			Turnaround Time: (Check)										
Relinquished By:	Date /Time:			Received by:	Date /Time:			same day _____			72 hours <u>initial</u>							
Relinquished By:	Date /Time:			Received in Lab by:	Date /Time:			24 hours _____			5 days _____							
Relinquished By:	Date /Time:			Received in Lab by:	Date /Time:			48 hours _____			normal _____							
Relinquished By:	Date /Time:			Received in Lab by:	Date /Time:			Sample Integrity: (Check)			intact _____ on ice _____							

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days. COC-GB



May 17, 1999

Service Request No: K9902862

Robyn Rice
Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, AZ 85044

Re: PIE00194.QST

Dear Robyn:

Enclosed are the results of the sample(s) submitted to our laboratory on . For your reference, these analyses have been assigned our service request number K9902862.

All analyses were performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions. My extension is 280.

Respectfully submitted,

Columbia Analytical Services, Inc.

Les Kennedy
Project Chemist

LK/kg

Page 1 of 6

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
J	Estimated concentration. The value is less than the method reporting limit, but greater than the method detection limit.
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NAN	Not Analyzed
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected at or above the MRL
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Del Mar Analytical
Project: PIE00194.QST
Sample Matrix: Soil

Service Request: K9902862
Date Collected: 5/4/99
Date Received: 5/7/99
Date Extracted: NA
Date Analyzed: 5/13/99

Carbon, Total Organic
OSU Walkly Black Method
Units: PERCENT
As Received Basis

Sample Name	Lab Code	MRL	Result
PIE00196	K9902862-001	0.05	0.10
PIE00197	K9902862-002	0.05	ND
Method Blank	K9902862-MB	0.05	ND

Approved By: MMR Date: 5/14/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Del Mar Analytical
Project: PIE00194.QST
Sample Matrix: Soil

Service Request: K9902862
Date Collected: 5/4/99
Date Received: 5/7/99
Date Extracted: NA
Date Analyzed: 5/13/99

Duplicate Summary
Carbon, Total Organic
OSU Walkly Black Method
Units: PERCENT
As Received Basis

Sample Name	Lab Code	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
PIE00196	K9902862-001DUP	0.05	0.10	0.11	0.10	10

Approved By: mmr Date: 5/14/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Del Mar Analytical
Project: PIE00194.QST
LCS Matrix: Soil

Service Request: K9902862
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 5/13/99

Laboratory Control Sample Summary
Carbon, Total Organic
OSU Walkly Black Method
Units: PERCENT

Analyte	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Walkly Black	0.62	0.57	92	75-125

Approved By: WMMR

Date: 5/14/99

LCS/102194

02862WETLJ1 - LCS 5/14/99

Page No.:

00005



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 3830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 ESTES Landfill

Report Number: PIE00186

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 6-11, 1999
 Analyzed: May 6-13, 1999
 Reported: May 18-19, 1999

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PIE00186	QST-B1-(GW/70) -(5-5-99)	Water	8260B, 8270, 200.7, 245.1, 8081A, 8082, 8141A & 8151
PIE00187	Trip Blank	Water	8260B

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All analyses met method criteria.

OBSERVATIONS: No significant observations were made.

SUBCONTRACTED: The 8141A & 8151 analysis was performed at APPL. Results are attached.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)


 Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785 0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Water, QST-B1-(GW/70)-(5-5-99)
 Lab Number: PIE00186

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 18, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)		
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	61%
Decachlorobiphenyl (30-130).....	44%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 3830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: 6699030 ESTES Landfill

Sample Descript: Water, QST-B1-(GW/70)-(5-5-99)
 Lab Number: PIE00186

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 18, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)		
Aroclor 1016.....	1.0	.....	N.D.
Aroclor 1221.....	1.0	.....	N.D.
Aroclor 1232.....	1.0	.....	N.D.
Aroclor 1242.....	1.0	.....	N.D.
Aroclor 1248.....	1.0	.....	N.D.
Aroclor 1254.....	1.0	.....	N.D.
Aroclor 1260.....	1.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recovers (Accept Limits):	
Decachlorobiphenyl (30-130).....	48%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: 6699030 ESTES Landfill
 Sample Descript: Water, QST-B1-(GW/70)-(5-5-99)
 Lab Number: PIE00186

Sampled: May 5, 1999
 Received: May 5, 1999
 Extracted: May 6, 1999
 Analyzed: May 6, 1999
 Reported: May 18, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene....	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	5.6	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane.....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	7.1	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	29	Vinyl chloride.....	5.0	54
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	92%
Toluene-d8 (75-140).....	97%
4-Bromofluorobenzene (75-135).....	92%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

ST Environmental
26 N. 44th St., Suite 110
Phoenix, AZ 85008
Attention: John Mjeher

Client Project ID: 6699030 ESTES Landfill
Sample Descript: Water, Trip Blank
Lab Number: PIE00187

352 Alton Ave. Irvine, CA 92608 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11 Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
1184 Chesapeake Dr., Suite #05, San Diego, CA 92123 (619) 505-9506 FAX (619) 505-9689
1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

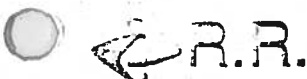
Sampled: May 5, 1999
Received: May 5, 1999
Extracted: May 6, 1999
Analyzed: May 6, 1999
Revised: Jun 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane...	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane...	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane.....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	93%
Toluene-d8 (75-140).....	95%
4-Bromofluorobenzene (75-135).....	92%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite #05, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 2830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

GC CALIBRATION CHECK CRITERIA

Method: 8081A
 QC Batch: E12 #24

Associated Samples: PIE00194

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
B-BHC	2	74
D-BHC	1	125
Endrin Ketone	1	117

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

GC CALIBRATION CHECK CRITERIA

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
2830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Method: 8081A
QC Batch: E12 #6

Associated Samples: PIE00194

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
B-BHC	2	73

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result. All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result. An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

1852 Alton Ave., Irvine, CA 92606 (949) 261 1022 FAX (949) 261 1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370 4667 FAX (909) 370 1046
 16525 Sherman Way, Suite C-11 Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505 9596 FAX (619) 505 9689
 2830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785 0043 FAX (480) 785 0851

MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/7/99
 Sample #: PIE00162

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony	0	1.0	0.982	1.06	98%	106%	7.6%	102%
Arsenic	0	1.0	0.941	1.04	94%	104%	10.0%	99%
Beryllium	0	1.0	0.959	0.998	96%	100%	4.0%	98%
Cadmium	0	1.0	0.918	0.950	92%	95%	3.4%	93%
Chromium	0	1.0	0.960	1.04	96%	104%	8.0%	100%
Copper	0.263	1.0	1.22	1.27	96%	101%	4.0%	98%
Lead	0	1.0	0.944	1.03	94%	103%	8.7%	99%
Nickel	0.101	1.0	0.983	1.01	88%	91%	2.7%	90%
Selenium	0	1.0	0.925	0.993	93%	99%	7.1%	96%
Silver	0	0.05	0.0519	0.0535	104%	107%	3.0%	105%
Thallium	0	1.0	0.898	0.921	90%	92%	2.5%	91%
Zinc	0	1.0	1.00	1.04	100%	104%	3.9%	102%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1) / SP) X 100
- PR2..... Percent Recovery of MSD; ((MSD-R1) / SP) X 100
- RPD..... Relative Percent Difference: ((MS-MSD)/(MS+MSD/2)) X 100
- Acceptance Limits RPD: < or = 20%
 MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

EPA Method: 245.1
 Matrix: Water
 Instrument: N/A

Date: 05/07/99
 Sample #: PIE00128
 Batch #: IE07HG1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppm	ppm	ppm	ppm	%	%	%	RPD	PR1/PR2
Mercury	0	0.00500	0.00571	0.00572	114%	114%	0.2%	≤ 20	70-130%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.
- QA/QC Criteria..... All QA/QC was within acceptance limit.



May 18, 1999

Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, Arizona 85044
Attn: Robyn Rice

Report of Laboratory Results: ARF number: 30218

Dear Ms. Rice:

One water sample for Project Number 'PIE00186.QST' was received May 07, 1999, in good condition. Written results are being provided on this May 18, 1999, for the requested analyses. All holding times were met. No unusual problems or complications were encountered with this sample set.

Sample Table

Sample Description	Del Mar ID	APPL Inc. ID	Sample Date
Water	PIE00186	78710w	05/05/99

If you have any questions or require further information, please contact us at your convenience. Thank you for choosing APPL, Inc.

Sincerely,

Mike Ray, Laboratory Director
APPL, Inc.

MR/mr
Enclosure
cc: File

EPA 8141

Del Mar Analytical
3830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00186.QST

Sample ID: PIE00186

Sample Collection Date: 5/5/99

ARF: 30218

APPL ID AP78710

QCG: \$8141W-990510BW-1650

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	5.0	ug/L	5/10/99	5/11/99
EPA 8141	Bolstar	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Chlorpyrifos	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Coumaphos	Not detected	1.0	ug/L	5/10/99	5/11/99
EPA 8141	Def	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Demeton-s	Not detected	1.0	ug/L	5/10/99	5/11/99
EPA 8141	Diazinon	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Dichlorvos	Not detected	1.0	ug/L	5/10/99	5/11/99
EPA 8141	Dimethoate	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Disulfoton	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	EPN	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Ethion	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Ethoprop	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Fensulfothion	Not detected	2.5	ug/L	5/10/99	5/11/99
EPA 8141	Fenthion	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Malathion	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Merphos	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Mevinphos	Not detected	3.5	ug/L	5/10/99	5/11/99
EPA 8141	Naled	Not detected	2.5	ug/L	5/10/99	5/11/99
EPA 8141	Parathion, ethyl	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Parathion, methyl	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Phorate	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Prowl	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Ronnel	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Stirophos	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Sulfotep	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Tepp	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Tokuthion	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Trichloronate	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Trifluralin	Not detected	0.50	ug/L	5/10/99	5/11/99
EPA 8141	Surrogate: Tributylphosphate	85.1	60-150	%	5/10/99	5/11/99
EPA 8141	Surrogate: Triphenylphosphate	81.6	76-140	%	5/10/99	5/11/99

Run #: 510045
Instrument: NPD03
Sequence: 990510
Dilution Factor: 1
Initials: FML

Printed: 5/18/99 1:11:38 PM

EPA 8151 Herbicides

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00186.QST

Sample ID: PIE00186

Sample Collection Date: 5/5/99

ARF: 30218

APPL ID AP78710

QCG: \$8151-990510WA-16566

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	0.50	ug/L	5/10/99	5/13/99
EPA 8151	Dalapon	Not detected	1.0	ug/L	5/10/99	5/13/99
EPA 8151	2,4-DB	Not detected	1.0	ug/L	5/10/99	5/13/99
EPA 8151	Dicamba	Not detected	0.10	ug/L	5/10/99	5/13/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/10/99	5/13/99
EPA 8151	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/10/99	5/13/99
EPA 8151	MCPA	Not detected	100	ug/L	5/10/99	5/13/99
EPA 8151	MCPPP	Not detected	100	ug/L	5/10/99	5/13/99
EPA 8151	2,4,5-T	Not detected	0.10	ug/L	5/10/99	5/13/99
EPA 8151	2,4,5-TP	Not detected	0.10	ug/L	5/10/99	5/13/99
EPA 8151	Surrogate Recovery	82.5	61-120	%	5/10/99	5/13/99

Run #: 97
Instrument: ECD01
Sequence: 990510
Dilution Factor: 1
Initials: KW

Printed: 5/18/99 1:11:39 PM

Method Blank

EPA 8141

Blank Name/QCG: 990510W - 16503
 Batch ID: S8141W-990510BW

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	Azinphosmethyl	Not detected	5.0	ug/L	5/10/99	5/11/99
BLANK	Bolstar	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Chlorpyrifos	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Coumaphos	Not detected	1.0	ug/L	5/10/99	5/11/99
BLANK	Def	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Demeton-s	Not detected	1.0	ug/L	5/10/99	5/11/99
BLANK	Diazinon	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Dichlorvos	Not detected	1.0	ug/L	5/10/99	5/11/99
BLANK	Dimethoate	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Disulfoton	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	EPN	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Ethion	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Ethoprop	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Fensulfothion	Not detected	2.5	ug/L	5/10/99	5/11/99
BLANK	Fenthion	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Malathion	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Merphos	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Mevinphos	Not detected	3.5	ug/L	5/10/99	5/11/99
BLANK	Naled	Not detected	2.5	ug/L	5/10/99	5/11/99
BLANK	Parathion, ethyl	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Parathion, methyl	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Phorate	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Prowl	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Ronnel	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Stirophos	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Sulfotep	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Tepp	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Tokuthion	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Trichloronate	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Trifluralin	Not detected	0.50	ug/L	5/10/99	5/11/99
BLANK	Surrogate: Tributylphosphate	97.1	60-150	%	5/10/99	5/11/99
BLANK	Surrogate: Triphenylphosphate	95.2	76-140	%	5/10/99	5/11/99

Run #: 510042
Instrument: NPD03
Sequence: 990510
Initials: FML

Matrix / Control Spike Recoveries

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: **990510BW LCS/LCSD**
Date/Initials: 5/12/99 FML
Extraction Date: 5/10/99
Matrix Type: Water
Units: ug/L

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery	%RPD (See below)
Phorate	2.50	0.00	1.54	61.4	1.80	72.0	16
Diazinon	2.50	0.00	2.22	88.8	2.64	106	17
Disulfoton	2.50	0.00	1.69	67.4	2.01	80.6	18
Methyl parathion	2.50	0.00	1.82	72.6	2.21	88.5	20
Stirophos	2.50	0.00	2.07	82.6	2.49	99.6	19
Ethion	2.50	0.00	1.62	64.7	1.92	76.8	17

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery
Tributyl phosphate	5.00	*****	4.08	81.6	4.77	95.4
Triphenyl phosphatate	5.00	*****	4.00	80.0	4.78	95.5

	Primary Column	
	Spike	Spk Dup
Analysis Date:	5/11/99	5/11/99
Analysis Time:	4:09 PM	4:46 PM
Instrument:	NPD03B	NPD03B
Column:	DB-5	DB-5
Sample/Vial #:	43	44
Extraction Ratio:	10/1000	10/1000
Dilution Factor:	1	1

Secondary Column	
Spike	Spk Dup

Comments:

	Soil	Water	Soil RPD	Water RPD
Phorate	26-98	22-96	21	24
Diazinon	61-139	57-130	24	21
Disulfoton	14-131	47-117	26	22
Meth Parathion	63-153	55-164	19	24
Stirophos	58-140	68-128	21	25
Ethion	66-131	65-134	36	20
Tributyl phosphate	51-154	60-150	NA	NA
Triphenyl phosphate	63-151	76-140	NA	NA

Method Blank
EPA 8151 Herbicides

Blank Name/QCG: 990510W - 16566
Batch ID: S8151-990510WA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	2,4-D	Not detected	0.50	ug/L	5/10/99	5/13/99
BLANK	Dalapon	Not detected	1.0	ug/L	5/10/99	5/13/99
BLANK	2,4-DB	Not detected	1.0	ug/L	5/10/99	5/13/99
BLANK	Dicamba	Not detected	0.10	ug/L	5/10/99	5/13/99
BLANK	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/10/99	5/13/99
BLANK	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/10/99	5/13/99
BLANK	MCPA	Not detected	100	ug/L	5/10/99	5/13/99
BLANK	MCPP	Not detected	100	ug/L	5/10/99	5/13/99
BLANK	2,4,5-T	Not detected	0.10	ug/L	5/10/99	5/13/99
BLANK	2,4,5-TP	Not detected	0.10	ug/L	5/10/99	5/13/99
BLANK	Surrogate recovery	100	61-120	%	5/10/99	5/13/99

Run #: 92
Instrument: ECD01
Sequence: 990510
Initials: KW

Laboratory Control Spike Recoveries

EPA 8151 Herbicides

APPL ID 990510W-78596 LCS/LCSD - 16566

Batch ID: \$8151-990510WA

APPL Inc.

4203 West Swift Avenue

Fresno, CA 93722

Compound Name	Spike Level ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	1.00	0.935	0.953	93.5	95.3	53-134	1.9	32
2,4,5-TP	1.00	0.888	0.896	88.8	89.6	60-118	0.90	24
2,4-D	1.00	1.11	1.15	111	115	44-155	3.5	15
Dicamba	1.00	1.00	1.02	100	102	48-102	2.0	24
Dichlorprop (2,4-DP)	1.00	0.967	0.992	96.7	99.2	37-146	2.6	18
Dinoseb (DNBP)	1.00	0.865	0.880	86.5	88.0	73-173	1.7	31
Surrogate: 2,4-DCAA	3.00	3.04	3.09	101	103	61-120		

Comments: _____

Primary	SPK	DUP
Extraction Date :	5/10/99	5/10/99
Analysis Date :	5/13/99	5/13/99
Instrument :	ECD01	ECD01
Run :	93	94
Analyst :	KW	

CHAIN OF CUSTODY FORM

Quote # _____ Page 1 of 1

Client Name/Address: <i>QST Corp</i>		Project/PO Number: <i>...</i>		Analysis Required [Grid of 12 columns for analysis types]															
Project Manager: <i>...</i>		Phone Number: <i>...</i>		Sampler: <i>...</i>		Fax Number: <i>...</i>													
Sample Description		Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives													
<i>PSI-01 (Copper)</i>		<i>...</i>	<i>...</i>	<i>1</i>	<i>...</i>	<i>...</i>													<i>...</i>
<i>...</i>		<i>...</i>	<i>...</i>	<i>1</i>	<i>...</i>	<i>...</i>													<i>...</i>
Relinquished By: <i>...</i>		Date /Time: <i>...</i>		Received by: <i>...</i>		Date /Time: <i>...</i>		Turnaround Time: (Check)											
Relinquished By: <i>...</i>		Date /Time: <i>...</i>		Received by: <i>...</i>		Date /Time: <i>...</i>		same day _____ 72 hours _____											
Relinquished By: <i>...</i>		Date /Time: <i>...</i>		Received in Lab by: <i>...</i>		Date /Time: <i>...</i>		24 hours _____ 5 days _____											
Relinquished By: <i>...</i>		Date /Time: <i>...</i>		Received in Lab by: <i>...</i>		Date /Time: <i>...</i>		48 hours _____ normal <input checked="" type="checkbox"/>											
Relinquished By: <i>...</i>		Date /Time: <i>...</i>		Received in Lab by: <i>...</i>		Date /Time: <i>...</i>		Sample Integrity (Check)											
Relinquished By: <i>...</i>		Date /Time: <i>...</i>		Received in Lab by: <i>...</i>		Date /Time: <i>...</i>		intact _____ on ice _____											

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sampled: May 5-6, 1999
 Received: May 6, 1999
 Extracted: May 6-18, 1999
 Analyzed: May 7-24, 1999
 Reported: May 25, 1999

Report Number: PIE00259

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PIE00259	QST-B5-(S/20) -5-5-99	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00260	QST-B5-(S/43) -5-5-99	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00261	QST-B6-(S/36) -5-6-99	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00262	QST-B6-(S/55) -5-6-99	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00263	Trip Blank	Water	8260B
PIE00264	QST-B6-(GW-70) -5-6-99	Water	8260B, 8270, 200.7, 245.1, 8081A, 8082, 8141A & 8151
PIE00265	QST-B5-(GW/60) -5-6-99	Water	8260B, 8270, 200.7, 245.1, 8081A, 8082, 8141A & 8151
PIE00266	Trip Blank	Water	8260B

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation. Soil volatiles were submitted in Encore sample containers.

HOLDING TIMES: Holding times were met.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: Method 8260 exceeded QA/QC parameters. See Corrective Action Report. All other analyses met method criteria.

OBSERVATIONS: No significant observations were made.

SUBCONTRACTED: The 8141A & 8151 analysis was performed at APPL. Results are attached.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B5-(S/20)-5-5-99
 Lab Number: PIE00259

Sampled: May 5, 1999
 Received: May 6, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 25, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		µg/Kg (ppb)
Aldrin.....	85	.....	N.D.
alpha-BHC.....	85	.....	N.D.
beta-BHC.....	85	.....	N.D.
delta-BHC.....	170	.....	N.D.
gamma-BHC (Lindane).....	85	.....	N.D.
Chlordane.....	1,700	.....	N.D.
4,4'-DDD.....	85	.....	N.D.
4,4'-DDE.....	85	.....	N.D.
4,4'-DDT.....	85	.....	N.D.
Dieldrin.....	85	.....	N.D.
Endosulfan I.....	85	.....	N.D.
Endosulfan II.....	85	.....	N.D.
Endosulfan sulfate.....	340	.....	N.D.
Endrin.....	85	.....	N.D.
Endrin aldehyde.....	85	.....	N.D.
Heptachlor.....	85	.....	N.D.
Heptachlor epoxide.....	85	.....	N.D.
Methoxychlor.....	85	.....	N.D.
Toxaphene.....	3,400	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to limited sample, the sample required dilution. Reporting limits for this sample have been raised by a factor of 17.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	Diluted out
Decachlorobiphenyl (30-130).....	Diluted out

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B5-(S/43)-5-5-99
 Lab Number: PIE00260

Sampled: May 5, 1999
 Received: May 6, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 25, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)			$\mu\text{g/Kg}$ (ppb)
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	76%
Decachlorobiphenyl (30-130).....	82%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B6-(S/36)-(5-6-99)
 Lab Number: PIE00261

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 25, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)			$\mu\text{g/Kg}$ (ppb)
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	63%
Decachlorobiphenyl (30-130).....	83%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B6-(S/55)-(5-6-99)
 Lab Number: PIE00262

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 25, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		µg/Kg (ppb)
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	62%
Decachlorobiphenyl (30-130).....	75%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B6(GW-70)-(5-6-99)
 Lab Number: PIE00264

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)		
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	53%
Decachlorobiphenyl (30-130).....	32%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, QST-B5-(GW/60)-5-6-99
 Lab Number: PIE00265

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)		
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	58%
Decachlorobiphenyl (30-130).....	45%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B5-(S/20)-5-5-99
 Lab Number: PIE00259

Sampled: May 5, 1999
 Received: May 6, 1999
 Extracted: May 12, 1999
 Analyzed: May 18, 1999
 Reported: May 25, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)		$\mu\text{g/Kg}$ (ppb)
Aroclor 1016.....	850	.....	N.D.
Aroclor 1221.....	850	.....	N.D.
Aroclor 1232.....	850	.....	N.D.
Aroclor 1242.....	850	.....	N.D.
Aroclor 1248.....	850	.....	N.D.
Aroclor 1254.....	850	.....	N.D.
Aroclor 1260.....	850	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to limited sample, the sample required dilution. Reporting limits for this sample have been raised by a factor of 17.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	Diluted out

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B5-(S/43)-5-5-99
 Lab Number: PIE00260

Sampled: May 5, 1999
 Received: May 6, 1999
 Extracted: May 12, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)			$\mu\text{g/Kg}$ (ppb)
Aroclor 1016.....	50	.....	N.D.
Aroclor 1221.....	50	.....	N.D.
Aroclor 1232.....	50	.....	N.D.
Aroclor 1242.....	50	.....	N.D.
Aroclor 1248.....	50	.....	N.D.
Aroclor 1254.....	50	.....	N.D.
Aroclor 1260.....	50	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	76%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B6-(S/36)-(5-6-99)
 Lab Number: PIE00261

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 12, 1999
 Analyzed: May 13, 1999
 Reported: May 25, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		
Aroclor 1016.....	50	.....	N.D.
Aroclor 1221.....	50	.....	N.D.
Aroclor 1232.....	50	.....	N.D.
Aroclor 1242.....	50	.....	N.D.
Aroclor 1248.....	50	.....	N.D.
Aroclor 1254.....	50	.....	N.D.
Aroclor 1260.....	50	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	77%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B6-(S/55)-(5-6-99)
 Lab Number: PIE00262

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 12, 1999
 Analyzed: May 13, 1999
 Reported: May 25, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)		$\mu\text{g/Kg}$ (ppb)
Aroclor 1016.....	50	.....	N.D.
Aroclor 1221.....	50	.....	N.D.
Aroclor 1232.....	50	.....	N.D.
Aroclor 1242.....	50	.....	N.D.
Aroclor 1248.....	50	.....	N.D.
Aroclor 1254.....	50	.....	N.D.
Aroclor 1260.....	50	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	71%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11. Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805. San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120. Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, QST-B6(GW-70)-(5-6-99)
 Lab Number: PIE00264

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)			µg/L (ppb)
Aroclor 1016.....	1.0	.....	N.D.
Aroclor 1221.....	1.0	.....	N.D.
Aroclor 1232.....	1.0	.....	N.D.
Aroclor 1242.....	1.0	.....	N.D.
Aroclor 1248.....	1.0	.....	N.D.
Aroclor 1254.....	1.0	.....	N.D.
Aroclor 1260.....	1.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	34%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B5-(GW/60)-5-6-99
 Lab Number: PIE00265

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)			µg/L (ppb)
Aroclor 1016.....	1.0	.....	N.D.
Aroclor 1221.....	1.0	.....	N.D.
Aroclor 1232.....	1.0	.....	N.D.
Aroclor 1242.....	1.0	.....	N.D.
Aroclor 1248.....	1.0	.....	N.D.
Aroclor 1254.....	1.0	.....	N.D.
Aroclor 1260.....	1.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	47%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B5-(S/20)-5-5-99
 Lab Number: PIE00259

Sampled: May 5, 1999
 Received: May 6, 1999
 Extracted: May 6, 1999
 Analyzed: May 7, 1999
 Reported: May 25, 1999

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	700	N.D.	1,3-Dichloropropane.....	140	N.D.
Benzene.....	140	N.D.	2,2-Dichloropropane.....	140	N.D.
Bromobenzene.....	350	N.D.	1,1-Dichloropropene.....	140	N.D.
Bromochloromethane.....	350	N.D.	cis-1,3-Dichloropropene.....	140	N.D.
Bromodichloromethane.....	140	N.D.	trans-1,3-Dichloropropene....	140	N.D.
Bromoform.....	350	N.D.	Ethylbenzene.....	140	N.D.
Bromomethane.....	350	N.D.	Hexachlorobutadiene.....	350	N.D.
2-Butanone (MEK).....	700	N.D.	2-Hexanone.....	700	N.D.
n-Butylbenzene.....	350	N.D.	Iodomethane.....	140	N.D.
sec-Butylbenzene.....	350	N.D.	Isopropylbenzene.....	140	N.D.
tert-Butylbenzene.....	350	N.D.	p-Isopropyltoluene.....	140	N.D.
Carbon Disulfide.....	350	N.D.	Methylene chloride.....	700	N.D.
Carbon tetrachloride.....	350	N.D.	4-Methyl-2-pentanone (MIBK).....	350	N.D.
Chlorobenzene.....	140	N.D.	Methyl-tert-butyl ether (MTBE).....	350	N.D.
Chloroethane.....	350	N.D.	Naphthalene.....	350	N.D.
2-Chloroethyl vinyl ether.....	350	N.D.	n-Propylbenzene.....	140	N.D.
Chloroform.....	140	N.D.	Styrene.....	140	N.D.
Chloromethane.....	350	N.D.	1,1,1,2-Tetrachloroethane....	350	N.D.
2-Chlorotoluene.....	350	N.D.	1,1,2,2-Tetrachloroethane....	140	N.D.
4-Chlorotoluene.....	350	N.D.	Tetrachloroethene.....	140	N.D.
Dibromochloromethane.....	140	N.D.	Toluene.....	140	N.D.
1,2-Dibromo-3-chloropropane.....	350	N.D.	1,2,3-Trichlorobenzene.....	350	N.D.
1,2-Dibromoethane (EDB).....	140	N.D.	1,2,4-Trichlorobenzene.....	350	N.D.
Dibromomethane.....	140	N.D.	1,1,1-Trichloroethane.....	140	N.D.
1,2-Dichlorobenzene.....	140	N.D.	1,1,2-Trichloroethane.....	140	N.D.
1,3-Dichlorobenzene.....	140	N.D.	Trichloroethene.....	140	N.D.
1,4-Dichlorobenzene.....	140	N.D.	Trichlorofluoromethane.....	350	N.D.
Dichlorodifluoromethane.....	350	N.D.	1,2,3-Trichloropropane.....	700	N.D.
1,1-Dichloroethane.....	140	N.D.	1,2,4-Trimethylbenzene.....	140	N.D.
1,2-Dichloroethane.....	140	N.D.	1,3,5-Trimethylbenzene.....	140	N.D.
1,1-Dichloroethene.....	350	N.D.	Vinyl acetate.....	350	N.D.
cis-1,2-Dichloroethene.....	140	N.D.	Vinyl chloride.....	350	N.D.
trans-1,2-Dichloroethene.....	140	N.D.	Xylenes (Total).....	420	N.D.
1,2-Dichloropropane.....	140	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 1.4.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	73%
Toluene-d8 (50-135).....	79%
4-Bromofluorobenzene (70-130).....	77%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mierher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B5-(S/43)-5-5-99
 Lab Number: PIE00260

Sampled: May 5, 1999
 Received: May 6, 1999
 Extracted: May 6, 1999
 Analyzed: May 7, 1999
 Reported: May 25, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropane.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene....	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	81%
Toluene-d8 (50-135).....	86%
4-Bromofluorobenzene (70-130).....	85%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B6-(S/36)-(5-6-99)
 Lab Number: PIE00261

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 6, 1999
 Analyzed: May 7, 1999
 Reported: May 25, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene....	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	86%
Toluene-d8 (50-135).....	90%
4-Bromofluorobenzene (70-130).....	87%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B6-(S/55)-(5-6-99)
 Lab Number: PIE00262

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 6, 1999
 Analyzed: May 7, 1999
 Reported: May 25, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene....	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	81%
Toluene-d8 (50-135).....	87%
4-Bromofluorobenzene (70-130).....	84%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, Trip Blank
 Lab Number: PIE00263

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	88%
Toluene-d8 (75-140).....	90%
4-Bromofluorobenzene (75-135).....	89%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B6(GW-70)-(5-6-99)
 Lab Number: PIE00264

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 25, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone	10	31	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene....	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene	2.0	4.5	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane.....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene	2.0	5.6	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene	2.0	2.8
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene	2.0	72	Vinyl chloride	5.0	60
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	92%
Toluene-d8 (75-140).....	93%
4-Bromofluorobenzene (75-135).....	92%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B5-(GW/60)-5-6-99
 Lab Number: PIE00265

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Reported: May 25, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	25	N.D.	1,3-Dichloropropane.....	5.0	N.D.
Benzene.....	5.0	N.D.	2,2-Dichloropropane.....	5.0	N.D.
Bromobenzene.....	13	N.D.	1,1-Dichloropropene.....	5.0	N.D.
Bromochloromethane.....	13	N.D.	cis-1,3-Dichloropropene.....	5.0	N.D.
Bromodichloromethane.....	5.0	N.D.	trans-1,3-Dichloropropene....	5.0	N.D.
Bromoform.....	13	N.D.	Ethylbenzene.....	5.0	N.D.
Bromomethane.....	13	N.D.	Hexachlorobutadiene.....	13	N.D.
2-Butanone (MEK).....	25	N.D.	2-Hexanone.....	25	N.D.
n-Butylbenzene.....	13	N.D.	Iodomethane.....	5.0	N.D.
sec-Butylbenzene.....	13	N.D.	Isopropylbenzene.....	5.0	N.D.
tert-Butylbenzene.....	13	N.D.	p-Isopropyltoluene.....	5.0	N.D.
Carbon Disulfide.....	13	N.D.	Methylene chloride.....	25	N.D.
Carbon tetrachloride.....	13	N.D.	4-Methyl-2-pentanone (MIBK).....	13	N.D.
Chlorobenzene.....	5.0	19	Methyl-tert-butyl ether (MTBE).....	13	N.D.
Chloroethane.....	13	N.D.	Naphthalene.....	13	N.D.
2-Chloroethyl vinyl ether.....	13	N.D.	n-Propylbenzene.....	5.0	N.D.
Chloroform.....	5.0	N.D.	Styrene.....	5.0	N.D.
Chloromethane.....	13	N.D.	1,1,1,2-Tetrachloroethane....	13	N.D.
2-Chlorotoluene.....	13	N.D.	1,1,2,2-Tetrachloroethane....	5.0	N.D.
4-Chlorotoluene.....	13	N.D.	Tetrachloroethene.....	5.0	N.D.
Dibromochloromethane.....	5.0	N.D.	Toluene.....	5.0	N.D.
1,2-Dibromo-3-chloropropane.....	13	N.D.	1,2,3-Trichlorobenzene.....	13	N.D.
1,2-Dibromoethane (EDB).....	5.0	N.D.	1,2,4-Trichlorobenzene.....	13	N.D.
Dibromomethane.....	5.0	N.D.	1,1,1-Trichloroethane.....	5.0	N.D.
1,2-Dichlorobenzene.....	5.0	22	1,1,2-Trichloroethane.....	5.0	N.D.
1,3-Dichlorobenzene.....	5.0	N.D.	Trichloroethene.....	5.0	N.D.
1,4-Dichlorobenzene.....	5.0	N.D.	Trichlorofluoromethane.....	13	N.D.
Dichlorodifluoromethane.....	13	N.D.	1,2,3-Trichloropropane.....	25	N.D.
1,1-Dichloroethane.....	5.0	N.D.	1,2,4-Trimethylbenzene.....	5.0	N.D.
1,2-Dichloroethane.....	5.0	N.D.	1,3,5-Trimethylbenzene.....	5.0	N.D.
1,1-Dichloroethene.....	13	N.D.	Vinyl acetate.....	13	N.D.
cis-1,2-Dichloroethene.....	5.0	170	Vinyl chloride.....	13	230
trans-1,2-Dichloroethene.....	5.0	N.D.	Xylenes (Total).....	25	N.D.
1,2-Dichloropropane.....	5.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	90%
Toluene-d8 (75-140).....	94%
4-Bromofluorobenzene (75-135).....	91%

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, Trip Blank
 Lab Number: PIE00266

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane...	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane...	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane.....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	92%
Toluene-d8 (75-140).....	93%
4-Bromofluorobenzene (75-135).....	90%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B5-(S/20)-5-5-99
 Lab Number: PIE00259

Sampled: May 5, 1999
 Received: May 6, 1999
 Extracted: May 10, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	61%
Phenol-d6 (24-113).....	81%
2,4,6-Tribromophenol (19-122).....	94%
Nitrobenzene-d5 (23-120).....	75%
2-Fluorobiphenyl (30-115).....	90%
Terphenyl-d14 (18-137).....	100%

Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B5(S/43)-5-5-99
 Lab Number: PIE00260

Sampled: May 5, 1999
 Received: May 6, 1999
 Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: May 25, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	200			
2,4-Dimethylphenol.....	250	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.
 *Due to sample matrix effects, the surrogate recovery was outside acceptance limits.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	84%
Phenol-d6 (24-113).....	91%
2,4,6-Tribromophenol (19-122).....	113%*
Nitrobenzene-d5 (23-120).....	74%
2-Fluorobiphenyl (30-115).....	96%
Terphenyl-d14 (18-137).....	98%

Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B6-(S/36)-(5-6-99)
 Lab Number: PIE00261

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: May 25, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	82%
Phenol-d6 (24-113).....	88%
2,4,6-Tribromophenol (19-122).....	110%
Nitrobenzene-d5 (23-120).....	71%
2-Fluorobiphenyl (30-115).....	94%
Terphenyl-d14 (18-137).....	92%

Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B6-(S/55)-(5-6-99)
 Lab Number: PIE00262

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: May 25, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

*Due to sample matrix effects, the surrogate recovery was outside acceptance limits.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	88%
Phenol-d6 (24-113).....	93%
2,4,6-Tribromophenol (19-122).....	117%*
Nitrobenzene-d5 (23-120).....	77%
2-Fluorobiphenyl (30-115).....	107%
Terphenyl-d14 (18-137).....	99%

Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B6(GW-70)-(5-6-99)
 Lab Number: PIE00264

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 10, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	11	N.D.	Dimethyl phthalate.....	11	N.D.
Acenaphthylene.....	11	N.D.	4,6-Dinitro-2-methylphenol...	42	N.D.
Aniline.....	11	N.D.	2,4-Dinitrophenol.....	110	N.D.
Anthracene.....	11	N.D.	2,4-Dinitrotoluene.....	11	N.D.
Azobenzene.....	21	N.D.	2,6-Dinitrotoluene.....	11	N.D.
Benzidine.....	110	N.D.	Di-N-octyl phthalate.....	42	N.D.
Benzoic Acid.....	110	N.D.	Fluoranthene.....	11	N.D.
Benz(a)anthracene.....	11	N.D.	Fluorene.....	11	N.D.
Benzo(b)fluoranthene.....	11	N.D.	Hexachlorobenzene.....	11	N.D.
Benzo(k)fluoranthene.....	11	N.D.	Hexachlorobutadiene.....	11	N.D.
Benzo(g,h,i)perylene.....	11	N.D.	Hexachlorocyclopentadiene..	42	N.D.
Benzo(a)pyrene.....	11	N.D.	Hexachloroethane.....	11	N.D.
Benzyl alcohol.....	21	N.D.	Indeno(1,2,3-cd)pyrene.....	21	N.D.
Bis(2-chloroethoxy)methane.....	11	N.D.	Isophorone.....	11	N.D.
Bis(2-chloroethyl)ether.....	11	N.D.	2-Methylnaphthalene.....	11	N.D.
Bis(2-chloroisopropyl)ether.....	11	N.D.	2-Methylphenol.....	11	N.D.
Bis(2-ethylhexyl)phthalate.....	110	N.D.	4-Methylphenol.....	11	N.D.
4-Bromophenyl phenyl ether.....	11	N.D.	Naphthalene.....	11	N.D.
Butyl benzyl phthalate.....	21	N.D.	2-Nitroaniline.....	21	N.D.
4-Chloroaniline.....	11	N.D.	3-Nitroaniline.....	21	N.D.
2-Chloronaphthalene.....	11	N.D.	4-Nitroaniline.....	110	N.D.
4-Chloro-3-methylphenol.....	21	N.D.	Nitrobenzene.....	42	N.D.
2-Chlorophenol.....	11	N.D.	2-Nitrophenol.....	11	N.D.
4-Chlorophenyl phenyl ether.....	11	N.D.	4-Nitrophenol.....	110	N.D.
Chrysene.....	11	N.D.	N-Nitrosodiphenylamine.....	11	N.D.
Dibenz(a,h)anthracene.....	21	N.D.	N-Nitroso-di-N-propylamine..	11	N.D.
Dibenzofuran.....	11	N.D.	Pentachlorophenol.....	42	N.D.
Di-N-butyl phthalate.....	21	N.D.	Phenanthrene.....	11	N.D.
1,3-Dichlorobenzene.....	11	N.D.	Phenol.....	11	N.D.
1,4-Dichlorobenzene.....	11	N.D.	Pyrene.....	11	N.D.
1,2-Dichlorobenzene.....	11	N.D.	1,2,4-Trichlorobenzene.....	11	N.D.
3,3-Dichlorobenzidine.....	42	N.D.	2,4,5-Trichlorophenol.....	21	N.D.
2,4-Dichlorophenol.....	11	N.D.	2,4,6-Trichlorophenol.....	21	N.D.
Diethyl phthalate.....	11	N.D.			
2,4-Dimethylphenol.....	21	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 1.053.

*Due to sample matrix effects, the surrogate recovery was outside acceptance limits.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	34%*
Phenol-d6 (40-115).....	43%
2,4,6-Tribromophenol (40-140).....	61%
Nitrobenzene-d5 (35-120).....	39%
2-Fluorobiphenyl (30-150).....	49%
Terphenyl-d14 (45-150).....	67%

Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B5-(GW/60)-5-6-99
 Lab Number: PIE00265

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 10, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene..	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine..	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	17	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	61%
Phenol-d6 (40-115).....	70%
2,4,6-Tribromophenol (40-140).....	93%
Nitrobenzene-d5 (35-120).....	59%
2-Fluorobiphenyl (30-150).....	72%
Terphenyl-d14 (45-150).....	85%

Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B5-(S/20)-5-5-99
 Lab Number: PIE00259

Sampled: May 5, 1999
 Received: May 6, 1999
 Extracted: May 10-14, 1999
 Analyzed: May 11-22, 1999
 Reported: May 25, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Arsenic.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 6010B	10*	N.D.	05/10/99	05/22/99
Cadmium.....	EPA 6010B	0.50	2.1	05/10/99	05/11/99
Chromium.....	EPA 6010B	2.0	28	05/10/99	05/11/99
Copper.....	EPA 6010B	2.5	89	05/10/99	05/11/99
Lead.....	EPA 6010B	2.5	20	05/10/99	05/11/99
Mercury.....	EPA 7471A	0.020	0.15	05/14/99	05/14/99
Nickel.....	EPA 6010B	2.5	41	05/10/99	05/11/99
Selenium.....	EPA 6010B	10	N.D.	05/10/99	05/11/99
Silver.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Thallium.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Zinc.....	EPA 6010B	2.5	110	05/10/99	05/11/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B5-(S/43)-5-5-99
 Lab Number: PIE00260

Sampled: May 5, 1999
 Received: May 6, 1999
 Extracted: May 10-18, 1999
 Analyzed: May 11-24, 1999
 Reported: May 25, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Arsenic.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/10/99	05/24/99
Cadmium.....	EPA 6010B	0.50	0.75	05/10/99	05/11/99
Chromium.....	EPA 6010B	2.0	22	05/10/99	05/11/99
Copper.....	EPA 6010B	2.5	20	05/18/99	05/22/99
Lead.....	EPA 6010B	2.5	3.0	05/10/99	05/11/99
Mercury.....	EPA 7471A	0.020	0.025	05/14/99	05/14/99
Nickel.....	EPA 6010B	2.5	9.1	05/10/99	05/11/99
Selenium.....	EPA 6010B	10	N.D.	05/10/99	05/11/99
Silver.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Thallium.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Zinc.....	EPA 6010B	2.5	17	05/18/99	05/22/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00259.QST <29 of 43>



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B6-(S/36)-(5-6-99)
 Lab Number: PIE00261

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 10-18, 1999
 Analyzed: May 11-24, 1999
 Reported: May 25, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Arsenic.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/10/99	05/24/99
Cadmium.....	EPA 6010B	0.50	1.1	05/10/99	05/11/99
Chromium.....	EPA 6010B	2.0	25	05/10/99	05/11/99
Copper.....	EPA 6010B	2.5	48	05/10/99	05/11/99
Lead.....	EPA 6010B	2.5	5.3	05/10/99	05/11/99
Mercury.....	EPA 7471A	0.020	0.029	05/11/99	05/11/99
Nickel.....	EPA 6010B	2.5	13	05/10/99	05/11/99
Selenium.....	EPA 6010B	10	N.D.	05/10/99	05/11/99
Silver.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Thallium.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Zinc.....	EPA 6010B	2.5	34	05/18/99	05/22/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B6-(S/55)-(5-6-99)
 Lab Number: PIE00262

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 10-18, 1999
 Analyzed: May 11-24, 1999
 Reported: May 25, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Arsenic.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/10/99	05/24/99
Cadmium.....	EPA 6010B	0.50	0.89	05/10/99	05/11/99
Chromium.....	EPA 6010B	2.0	24	05/10/99	05/11/99
Copper.....	EPA 6010B	2.5	42	05/18/99	05/22/99
Lead.....	EPA 6010B	2.5	3.5	05/10/99	05/11/99
Mercury.....	EPA 7471A	0.020	N.D.	05/11/99	05/11/99
Nickel.....	EPA 6010B	2.5	12	05/10/99	05/11/99
Selenium.....	EPA 6010B	10	N.D.	05/10/99	05/11/99
Silver.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Thallium.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Zinc.....	EPA 6010B	2.5	29	05/18/99	05/22/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B6(GW-70)-(5-6-99)
 Lab Number: PIE00264

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 10, 1999
 Analyzed: May 10-19, 1999
 Reported: May 25, 1999

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/10/99	05/19/99
Arsenic.....	EPA 200.7	0.050	0.17	05/10/99	05/11/99
Beryllium.....	EPA 200.7	0.10*	N.D.	05/10/99	05/19/99
Cadmium.....	EPA 200.7	0.0050	0.015	05/10/99	05/11/99
Chromium.....	EPA 200.7	0.010	0.36	05/10/99	05/11/99
Copper.....	EPA 200.7	0.020	0.49	05/10/99	05/11/99
Lead.....	EPA 200.7	0.050	0.12	05/10/99	05/11/99
Mercury.....	EPA 245.1	0.00020	0.00052	05/10/99	05/10/99
Nickel.....	EPA 200.7	0.050	0.34	05/10/99	05/11/99
Selenium.....	EPA 200.7	0.060	N.D.	05/10/99	05/11/99
Silver.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Thallium.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Zinc.....	EPA 200.7	0.050	0.35	05/10/99	05/11/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B5-(GW/60)-5-6-99
 Lab Number: PIE00265

Sampled: May 6, 1999
 Received: May 6, 1999
 Extracted: May 10, 1999
 Analyzed: May 10-19, 1999
 Reported: May 25, 1999

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/10/99	05/19/99
Arsenic.....	EPA 200.7	0.050	0.061	05/10/99	05/11/99
Beryllium.....	EPA 200.7	0.10*	N.D.	05/10/99	05/19/99
Cadmium.....	EPA 200.7	0.0050	0.0088	05/10/99	05/11/99
Chromium.....	EPA 200.7	0.010	0.22	05/10/99	05/11/99
Copper.....	EPA 200.7	0.020	0.31	05/10/99	05/11/99
Lead.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Mercury.....	EPA 245.1	0.00020	N.D.	05/10/99	05/10/99
Nickel.....	EPA 200.7	0.050	0.17	05/10/99	05/11/99
Selenium.....	EPA 200.7	0.060	N.D.	05/10/99	05/11/99
Silver.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Thallium.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Zinc.....	EPA 200.7	0.050	0.17	05/10/99	05/11/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00259.QST <33 of 43>

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 12, 1999
 Analyzed: May 13, 1999
 Reported: May 25, 1999
 Matrix: Soil

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)			µg/Kg (ppb)
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	91%
Decachlorobiphenyl (30-130).....	98%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999
 Matrix: Water

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)		
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	84%
Decachlorobiphenyl (30-130).....	80%

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieber

Method Blank

Extracted: May 12, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999
 Matrix: Soil

POLYCHLORINATED BIPHENYLS by GC (EPA 3550/8082)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)		$\mu\text{g/Kg}$ (ppb)
Aroclor 1016.....	50	.....	N.D.
Aroclor 1221.....	50	.....	N.D.
Aroclor 1232.....	50	.....	N.D.
Aroclor 1242.....	50	.....	N.D.
Aroclor 1248.....	50	.....	N.D.
Aroclor 1254.....	50	.....	N.D.
Aroclor 1260.....	50	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	77%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999
 Matrix: Water

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)		
Aroclor 1016.....	1.0	.....	N.D.
Aroclor 1221.....	1.0	.....	N.D.
Aroclor 1232.....	1.0	.....	N.D.
Aroclor 1242.....	1.0	.....	N.D.
Aroclor 1248.....	1.0	.....	N.D.
Aroclor 1254.....	1.0	.....	N.D.
Aroclor 1260.....	1.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Tetrachloro-m-xylene (30-130)....	94%
Decachlorobiphenyl (30-130).....	85%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 6, 1999
 Analyzed: May 7, 1999
 Reported: May 25, 1999
 Matrix: Soil

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene....	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	84%
Toluene-d8 (50-135).....	91%
4-Bromofluorobenzene (70-130).....	85%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

POST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 21, 1999
 Matrix: Water

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane...	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane...	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane.....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

*See Corrective Action Report.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	73%
Toluene-d8 (75-140).....	75%
4-Bromofluorobenzene (75-135).....	73%*

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: May 25, 1999
 Matrix: Soil

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	86%
Phenol-d6 (24-113).....	89%
2,4,6-Tribromophenol (19-122).....	103%
Nitrobenzene-d5 (23-120).....	75%
2-Fluorobiphenyl (30-115).....	91%
Terphenyl-d14 (18-137).....	89%



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11. Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805. San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120. Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 10, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999
 Matrix: Water

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene..	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine..	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine
 Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	81%
Phenol-d6 (40-115).....	86%
2,4,6-Tribromophenol (40-140).....	97%
Nitrobenzene-d5 (35-120).....	74%
2-Fluorobiphenyl (30-150).....	88%
Terphenyl-d14 (45-150).....	80%

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 10-18, 1999
 Analyzed: May 11-24, 1999
 Reported: May 25, 1999
 Matrix: Soil

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Arsenic.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 6010B	0.50	N.D.	05/10/99	May 22-24, 1999
Cadmium.....	EPA 6010B	0.50	N.D.	05/10/99	05/11/99
Chromium.....	EPA 6010B	2.0	N.D.	05/10/99	05/11/99
Copper.....	EPA 6010B	2.5	N.D.	May 10-18, 1999	May 11-22, 1999
Lead.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Mercury.....	EPA 7471A	0.020	N.D.	May 11-14, 1999	May 11-14, 1999
Nickel.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Selenium.....	EPA 6010B	10	N.D.	05/10/99	05/11/99
Silver.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Thallium.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Zinc.....	EPA 6010B	2.5	N.D.	May 10-18, 1999	May 11-22, 1999

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 10, 1999
 Analyzed: May 10-19, 1999
 Reported: May 25, 1999
 Matrix: Water

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/10/99	05/19/99
Arsenic.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/10/99	05/19/99
Cadmium.....	EPA 200.7	0.0050	N.D.	05/10/99	05/11/99
Chromium.....	EPA 200.7	0.010	N.D.	05/10/99	05/11/99
Copper.....	EPA 200.7	0.020	N.D.	05/10/99	05/11/99
Lead.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Mercury.....	EPA 245.1	0.00020	N.D.	05/10/99	05/10/99
Nickel.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Selenium.....	EPA 200.7	0.060	N.D.	05/10/99	05/11/99
Silver.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Thallium.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Zinc.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



MS/MSD DATA REPORT

EPA Method: 8081A
 Matrix: Soil
 Instrument: GC

Date: 5/13/99
 Sample #: LCS/LCSD*
 Batch #: IE12PE1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
DDE	0	20	18.6	17.5	93%	88%	6%	50	20-145
DDD	0	20	20.4	18.8	102%	94%	8%	30	50-130
DDT	0	20	22.6	21.3	113%	107%	6%	30	20-160

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

- QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).

MS/MSD DATA REPORT

EPA Method: 8081
 Matrix: Water
 Instrument: GC

Date: 05/12/99
 Sample #: LCS/LCSD*
 Batch #: IE11PE1W

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
DDE	0	0.5	0.388	0.416	78%	83%	7%	40	55-125
DDD	0	0.5	0.410	0.442	82%	88%	8%	20	60-130
DDT	0	0.5	0.430	0.469	86%	94%	9%	20	55-145

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provide

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) Note: This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 8082 (PCB's only)
 Matrix: Soil
 Instrument: GC

Date: 5/12/99
 Sample #: IE00786
 Batch #: IE12PE1S

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
PCB 1016 (Arochlor)	0	160	145	91.6	91%	57%	45%	50	60-140
PCB 1260 (Arochlor)	0	160	130	99.1	81%	62%	27%	50	60-140

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD 8082

DATE: 5/12/99

Analyte

St

LCS

PR

ppb

ppb

%

Aroclor 1016
Aroclor 1260

160	140	88%
160	135	84%

Definition of Terms:

St. Standard Concentration

LCS. Laboratory Control Sample Result

PR. Percent Recovery of LCS; (LCS/St) X 100

QA/QC CRITERIA: QA/QC is within acceptance limits.

Del Mar Analytical



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 8082 (PCB's only)
 Matrix: Water
 Instrument: GC

Date: 5/12/99
 Sample #: LCS/LCSD*
 Batch #: IE11PE1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
PCB 1016 (Arochlor)	0	4.0	3.28	3.33	82%	83%	2%	50	60-140
PCB 1260 (Arochlor)	0	4.0	2.95	3.10	74%	78%	5%	50	60-140

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



Del Mar Analytical

2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785 0851

MS/MSD DATA REPORT

EPA Method: 8260B
 Matrix: Soil
 Instrument: GCMS

Date: 05/07/99
 Sample #: PIE00189
 Batch #: IE06MS1S

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Vinyl Chloride	0.0	500	170	173	34%	35%	1.7%	≤ 112	0-100%
1,1-Dichloroethene	0.0	500	410	435	82%	87%	5.9%	≤ 20	70-125%
1,1-Dichloroethane	0.0	500	403	432	81%	86%	6.9%	≤ 20	75-115%
Chloroform	0.0	500	395	421	79%	84%	6.4%	≤ 26	75-120%
1,2-Dichloroethane	0.0	500	377	400	75%	80%	5.9%	≤ 20	70-115%
Benzene	0.0	500	431	456	86%	91%	5.6%	≤ 20	80-120%
Trichloroethene	0.0	500	401	430	80%	86%	7.0%	≤ 20	75-120%
Toluene	0.0	500	405	433	81%	87%	6.7%	≤ 20	80-125%
Tetrachloroethene	0.0	500	387	405	77%	81%	4.5%	≤ 20	75-120%
Chlorobenzene	0.0	500	405	427	81%	85%	5%	≤ 20	75-115%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Determined by Control Charts

QA/QC Criteria..... All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

EPA Method: 8260B
 Matrix: Water
 Instrument: GCMS

Date: 05/11/99
 Sample #: PIE00264
 Batch #: IE11011W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Vinyl Chloride	59.7	25	74.7	70.6	60%	44%	6%	≤ 20	45-170%
1,1-Dichloroethene	0.0	25	27.5	27.6	110%	110%	0.4%	≤ 20	70-130%
1,1-Dichloroethane	0.0	25	24.3	24.3	97%	97%	0.0%	≤ 20	80-135%
Chloroform	0.0	25	25.0	25.1	100%	100%	0.4%	≤ 20	80-135%
1,2-Dichloroethane	0.0	25	21.5	21.6	86%	86%	0.5%	≤ 20	80-130%
Benzene	0.0	25	29.0	28.9	116%	116%	0.3%	≤ 20	75-135%
Trichloroethene	2.8	25	26.2	27.4	94%	98%	4.5%	≤ 20	75-130%
Toluene	0.0	25	25.4	26.4	102%	106%	3.9%	≤ 20	75-135%
Tetrachloroethene	0.0	25	23.4	24.5	94%	98%	4.6%	≤ 20	70-135%
Chlorobenzene	4.5	25	28.2	28.6	95%	96%	1.4%	≤ 20	75-125%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.
- QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 8260B

BATCH: IE11011W
 DATE: 5/11/99

Analyte	St	R1	PR	QC Limits
	ppb	ppb	%	%
Vinyl Chloride	25	25.7	103%	25-200
1,1-Dichloroethene	25	29.4	118%	55-165
1,1-Dichloroethane	25	24.5	98%	65-155
Chloroform	25	25.5	102%	65-150
1,2-Dichloroethane	25	21.4	86%	65-155
Benzene	25	29.4	118%	60-155
Trichloroethene	25	24.6	98%	60-150
Toluene	25	27.2	109%	65-155
Tetrachloroethene	25	24.2	97%	60-155
Chlorobenzene	25	24.3	97%	65-145

Definition of Terms:

St. Concentration standard added to sample

R1. Standard Result

PR. Percent Recovery

Del Mar Analytical



CORRECTIVE ACTION REPORT

Department: GC/MS Method: 8260B
Date: 05/11/99 Matrix: Water
Associated Samples: PIE00194, PIE00263-266, PIE00321-323, PIE00348-349
PIE00368-369, PIE00393-400

Identification and Definition of Problem:

The Method Blank analyzed in QC batch IE11011W had low recovery for surrogate 4-Bromofluorobenzene. 73% recovery is below the current control limits.

Determination of the Cause of the Problem:

Current Del Mar Analytical control limits are 75-130% for this surrogate. No cause could be determined for this one low recovery.

Corrective Action:

No further corrective action was taken because all associated sample recoveries were within control limits. Subsequent Method Blank surrogate recoveries were acceptable.

June Schaper: June Schaper
Quality Assurance Manager

Date: 6/1/99



MS/MSD DATA REPORT

EPA Method: 8270B
 Matrix: Soil
 Instrument: GCMS

Date: 05/11/99
 Sample #: LCS/LCSD*
 Batch #: IE10SE1S

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
Phenol	0.0	50.0	41.0	44.0	82%	88%	7%	20	30-95
2-Chlorophenol	0.0	50.0	43.0	48.0	86%	96%	11%	25	30-100
1,4-Dichlorobenzene	0.0	50.0	39.0	44.0	78%	88%	12%	30	25-90
N-Nitroso-di-n-propylamine	0.0	50.0	43.0	46.0	86%	92%	7%	20	35-100
1,2,4-Trichlorobenzene	0.0	50.0	39.0	42.0	78%	84%	7%	25	30-95
4-Chloro-3-methylphenol	0.0	50.0	46.0	48.0	92%	96%	4%	25	40-110
acenaphthene	0.0	50.0	46.0	50.0	92%	100%	8%	15	35-105
2,4-Dinitrotoluene	0.0	50.0	48.0	51.0	96%	102%	6%	20	35-110
4-Nitrophenol	0.0	50.0	52.0	56.0	104%	112%	7%	25	15-135
Pentachlorophenol	0.0	50.0	53.0	55.0	106%	110%	4%	30	30-115
Pyrene	0.0	50.0	46.0	49.0	92%	98%	6%	25	30-140

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1)/SP) x 100
- PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) x 100
- RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) x 100
- Acceptance Limits..... Statistically determined on an annual basis.
- QA/QC Criteria..... See Corrective Action Report.



MS/MSD DATA REPORT

EPA Method: 8270
 Matrix: Water
 Instrument: GCMS

Date: 05/11/99
 Sample #: LCS/LCSD*
 Batch #: IE10SE1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
Phenol	0.1	50.0	37.0	38.0	74%	76%	3%	15	40-110
2-Chlorophenol	0.0	50.0	38.0	40.0	76%	80%	5%	15	40-110
1,4-Dichlorobenzene	0.0	50.0	31.0	32.0	62%	64%	3%	15	35-110
N-Nitroso-di-n-propylamine	0.0	50.0	41.0	41.0	82%	82%	0%	20	45-120
1,2,4-Trichlorobenzene	0.0	50.0	34.0	34.0	68%	68%	0%	15	44-110
4-Chloro-3-methylphenol	0.0	50.0	43.0	44.0	86%	88%	2%	20	50-115
acenaphthene	0.0	50.0	42.0	43.0	84%	86%	2%	15	50-115
2,4-Dinitrotoluene	0.0	50.0	45.0	47.0	90%	94%	4%	15	55-120
4-Nitrophenol	0.0	50.0	50.0	51.0	100%	102%	2%	15	45-120
Pentachlorophenol	0.0	50.0	51.0	52.0	102%	104%	2%	20	50-125
Pyrene	0.1	50.0	43.0	44.0	86%	88%	2%	25	70-120

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.



MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/11/99
 Sample #: PIE00281

Analyte								MEAN
	R1	SP	MS	MSD	PR1	PR2	RPD	PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony*	0	50.0	*	*	*	*	*	*
Arsenic	5.79	50.0	51.4	52.7	91%	94%	2.5%	93%
Cadmium	1.93	50.0	50.3	51.4	97%	99%	2.2%	98%
Chromium	67.6	50.0	114	125	93%	115%	9.2%	104%
Copper**	1790	50.0	1770	2350	**	**	28.2%	**
Lead*	80.8	50.0	125	145	88%	128%	14.8%	108%
Nickel*	50.1	50.0	92.9	130	86%	160%	33.3%	123%
Selenium	0	50.0	47.8	46.7	96%	93%	2.3%	95%
Silver	0	50.0	54.2	55.8	108%	112%	2.9%	110%
Thallium	0	50.0	41.3	41.5	83%	83%	0.5%	83%
Zinc**	536	50.0	576	907	80%	**	44.6%	**

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1) / SP) X 100
- PR2..... Percent Recovery of MSD; ((MSD-R1) / SP) X 100
- RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: **Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See LCS for batch validation.

*The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

DATE: 5/11/99

Analyte	St	R1	PR
	ppm	ppm	%
Antimony	50.0	46.0	92%
Copper	50.0	46.4	93%
Lead	50.0	44.4	89%
Nickel	50.0	44.4	89%
Zinc	50.0	44.4	89%

Definition of Terms:

- St..... Standard Concentration
- R1..... Standard Result
- PR..... Percent Recovery of R1; $(R1/St) \times 100$
- Acceptance Limits LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/21/99
 Sample #: PIE00281

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN
	ppm	ppm	ppm	ppm	%	%	%	PR
Beryllium	0	50.0	48.7	52.7	97%	105%	7.9%	101%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/22/99
 Sample #: PIE00957

Analyte								MEAN
	R1	SP	MS	MSD	PR1	PR2	RPD	PR
	ppm	ppm	ppm	ppm	%	%	%	%
Copper	9300	50.0	9975	9450	1350%	300%	5.4%	825%
Zinc	920	50.0	733	940	0%	40%	24.7%	20%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
INSTRUMENT: ICP
MATRIX: Soil

DATE: 5/22/99

Analyte	St	R1	PR
	ppm	ppm	%
Copper	50.0	50.3	101%
Zinc	50.0	47.8	96%

Definition of Terms:

- St. Standard Concentration
- R1. Standard Result
- PR. Percent Recovery of R1; $(R1/St) \times 100$
- Acceptance Limits LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

EPA Method: 7471A
 Matrix: Soil
 Instrument: N/A

Date: 05/14/99
 Sample #: PIE00259
 Batch #: IE14HG1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppm	ppm	ppm	ppm	%	%	%	RPD	PR1/PR2
								%	%
Mercury	0.154	0.333	0.417	0.419	79%	80%	0%	≤ 20	85-115%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See LCS for batch validation.



Del Mar Analytical

3852 Allan Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785 0851

LCS DATA REPORT

METHOD: 7471A
 MATRIX : Soil

DATE: 5/14/99

Analyte	Sp	LCS	PR
	ppm	ppm	%
Mercury	0.00200	0.00198	99%

Definition of Terms:

- Sp..... Standard Concentration
- LCS..... Laboratory Control Sample Result
- PR..... Percent Recovery of LCS; (LCS/Sp) X 100

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical



MS/MSD DATA REPORT

EPA Method: 7471A
 Matrix: Soil
 Instrument: N/A

Date: 05/11/99
 Sample #: PIE00209
 Batch #: IE11HG1S

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppm	ppm	ppm	ppm	%	%	%	RPD	PR1/PR2
Mercury	0	0.333	0.294	0.310	88%	93%	5%	≤ 20	85-115%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.
- QA/QC Criteria..... All QA/QC was within acceptance limits.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/11/99
 Sample #: PIE00214

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Arsenic	0	1.0	0.992	1.02	99%	102%	2.8%	101%
Cadmium	0	1.0	0.891	0.911	89%	91%	2.2%	90%
Chromium	0	1.0	0.882	0.898	88%	90%	1.8%	89%
Copper	0	1.0	0.964	0.990	96%	99%	2.7%	98%
Lead	0	1.0	0.877	0.887	88%	89%	1.1%	88%
Nickel	0	1.0	0.854	0.873	85%	87%	2.2%	86%
Selenium	0	1.0	0.882	0.901	88%	90%	2.1%	89%
Silver	0	0.05	0.0507	0.0540	101%	108%	6.3%	105%
Thallium	0	1.0	0.809	0.822	81%	82%	1.6%	82%
Zinc	0	1.0	0.997	1.02	100%	102%	2.3%	101%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: $< \text{ or } = 20\%$
 MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)

MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/21/99
 Sample #: PIE00214

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony	0	1.0	1.03	1.04	103%	104%	1.0%	104%
Beryllium	0	1.0	1.01	1.04	101%	104%	2.9%	103%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD/2)) \times 100$
- Acceptance Limits RPD: $< \text{ or } = 20\%$
 MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

EPA Method: 245.1
 Matrix: Water
 Instrument: N/A

Date: 05/10/99
 Sample #: PIE00240
 Batch #: IE10HG1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppm	ppm	ppm	ppm	%	%	%	RPD	PR1/PR2
Mercury	0	0.00500	0.00548	0.00539	110%	108%	1.7%	≤ 20	70-130%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC was within acceptance limit.

E-5161.01-3.4.8

ESTES LANDFILL RI/FS REMEDIAL INVESTIGATION REPORT

Volume II of V
Appendix K



Prepared for
Arizona Department of Environmental Quality



By



**Environmental Science &
Engineering, Inc.**

A MACTEC COMPANY



May 21, 1999
Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, Arizona 85044
Attn: Robyn Rice

Report of Laboratory Results: ARF number: 30241

Dear Ms. Rice:

Six soil samples for Project Number 'PIE00259.GEC' were received May 11, 1999, in good condition. Written results are being provided on this May 21, 1999, for the requested analyses. All holding times were met.

For the EPA method 8141 analyses, the LCS and the MS/MSD yielded very high recoveries of Diazinon. The MS/MSD parent sample is a nonproject sample with a very high Diazinon response. It is believed that carryover from the MS/MSD contaminated the LCS. Since no Diazinon was found in any of the project samples, no further action was taken.

No other unusual problems or complications were encountered with this sample set.

Sample Table

Sample Description	Del Mar ID	APPL Inc. ID	Sample Date
Soil	PIE00259	78763s	05/05/99
Soil	PIE00260	78764s	05/05/99
Soil	PIE00261	78765s	05/06/99
Soil	PIE00262	78766s	05/06/99
Water	PIE00264	78767w	05/06/99
Water	PIE00265	78768w	05/06/99

If you have any questions or require further information, please contact us at your convenience. Thank you for choosing APPL, Inc.

Sincerely,

Mike Ray, Laboratory Director
APPL, Inc.

MR/mr
Enclosure
cc: File

EPA 8141 OP Pesticides

Del Mar Analytical
30 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice
Project: PIE00259.QST
Sample ID: PIE00259
Sample Collection Date: 5/5/99

ARF: 30241
APPL ID AP78763
QCG: \$8141S-990514AS-16647

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/14/99	5/20/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/14/99	5/20/99
EPA 8141	Def	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/14/99	5/20/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/14/99	5/20/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/14/99	5/20/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/14/99	5/20/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/14/99	5/20/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/14/99	5/20/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Surrogate: Tributylphosphate	101	51-154	%	5/14/99	5/20/99
EPA 8141	Surrogate: Triphenylphosphate	99.9	63-151	%	5/14/99	5/20/99

Run #: 517103
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

Printed: 5/21/99 10:57:40 AM

EPA 8141 OP Pesticides

Del Mar Analytical
30 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00259.QST

Sample ID: PIE00260

Sample Collection Date: 5/5/99

ARF: 30241

APPL ID AP78764

QCG: \$8141S-990514AS-16647

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/14/99	5/18/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Def	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/14/99	5/18/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/14/99	5/18/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/14/99	5/18/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Surrogate: Tributylphosphate	81.4	51-154	%	5/14/99	5/18/99
EPA 8141	Surrogate: Triphenylphosphate	82.1	63-151	%	5/14/99	5/18/99

Run #: 517055
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

Printed: 5/21/99 10:57:40 AM

EPA 8141 OP Pesticides

Del Mar Analytical
330 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00259.QST

Sample ID: PIE00261

Sample Collection Date: 5/6/99

ARF: 30241

APPL ID AP78765

QCG: \$8141S-990514AS-16647

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/14/99	5/18/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Def	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/14/99	5/18/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/14/99	5/18/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/14/99	5/18/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Surrogate: Tributylphosphate	85.6	51-154	%	5/14/99	5/18/99
EPA 8141	Surrogate: Triphenylphosphate	91.9	63-151	%	5/14/99	5/18/99

Run #: 517056
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

Printed: 5/21/99 10:57:41 AM

EPA 8141 OP Pesticides

Del Mar Analytical
830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00259.QST

Sample ID: PIE00262

Sample Collection Date: 5/6/99

ARF: 30241

APPL ID AP78766

QCG: \$8141S-990514AS-16647

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/14/99	5/18/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Def	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/14/99	5/18/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/14/99	5/18/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/14/99	5/18/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Surrogate: Tributylphosphate	82.7	51-154	%	5/14/99	5/18/99
EPA 8141	Surrogate: Triphenylphosphate	94.1	63-151	%	5/14/99	5/18/99

Run #: 517057
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

Printed: 5/21/99 10:57:41 AM

EPA 8141

Del Mar Analytical
830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00259.QST

Sample ID: PIE00264

Sample Collection Date: 5/6/99

ARF: 30241

APPL ID AP78767

QCG: \$8141W-990513A-16601

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	5.0	ug/L	5/13/99	5/18/99
EPA 8141	Bolstar	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Chlorpyrifos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Coumaphos	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Def	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Demeton-s	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Diazinon	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Dichlorvos	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Dimethoate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Disulfoton	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	EPN	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ethion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ethoprop	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Fensulfothion	Not detected	2.5	ug/L	5/13/99	5/18/99
EPA 8141	Fenthion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Malathion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Merphos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Mevinphos	Not detected	3.5	ug/L	5/13/99	5/18/99
EPA 8141	Naled	Not detected	2.5	ug/L	5/13/99	5/18/99
EPA 8141	Parathion, ethyl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Parathion, methyl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Phorate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Prowl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ronnel	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Stirophos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Sulfotep	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Tepp	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Tokuthion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Trichloronate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Trifluralin	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Surrogate: Tributylphosphate	83.0	60-150	%	5/13/99	5/18/99
EPA 8141	Surrogate: Triphenylphosphate	78.9	76-140	%	5/13/99	5/18/99

Run #: 517038
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

Printed: 5/18/99 12:03:51 PM

EPA 8141

Del Mar Analytical
30 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00259.QST

Sample ID: PIE00265

Sample Collection Date: 5/6/99

ARF: 30241

APPL ID AP78768

QCG: \$8141W-990513A-16601

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	5.0	ug/L	5/13/99	5/18/99
EPA 8141	Bolstar	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	-Chlorpyrifos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Coumaphos	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Def	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Demeton-s	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Diazinon	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Dichlorvos	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Dimethoate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Disulfoton	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	EPN	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ethion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ethoprop	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Fensulfothion	Not detected	2.5	ug/L	5/13/99	5/18/99
EPA 8141	Fenthion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Malathion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Merphos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Mevinphos	Not detected	3.5	ug/L	5/13/99	5/18/99
EPA 8141	Naled	Not detected	2.5	ug/L	5/13/99	5/18/99
EPA 8141	Parathion, ethyl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Parathion, methyl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Phorate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Prowl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ronnel	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Stirophos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Sulfotep	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Tepp	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Tokuthion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Trichloronate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Trifluralin	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Surrogate: Tributylphosphate	78.2	60-150	%	5/13/99	5/18/99
EPA 8141	Surrogate: Triphenylphosphate	74.1 #	76-140	%	5/13/99	5/18/99

= Recovery is outside QC limits.

Run #: 517040
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

Printed: 5/18/99 12:03:51 PM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
100 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00259.QST

Sample ID: PIE00259

Sample Collection Date: 5/5/99

ARF: 30241

APPL ID AP78763

QCG: \$8151S-990513SA-16619

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/13/99	5/18/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/18/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Surrogate recovery	105	93-141	%	5/13/99	5/18/99

Run #: 30
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 12:28:45 PM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
330 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice
Project: PIE00259.QST
Sample ID: PIE00260
Sample Collection Date: 5/5/99

ARF: 30241
APPL ID AP78764
QCG: S8151S-990513SA-16619

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/13/99	5/18/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/18/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Surrogate recovery	113	93-141	%	5/13/99	5/18/99

Run #: 34
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 12:28:45 PM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
330 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice
Project: PIE00259.QST
Sample ID: PIE00261
Sample Collection Date: 5/6/99

ARF: 30241
APPL ID AP78765
QCG: \$8151S-990513SA-16619

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/13/99	5/18/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/18/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Surrogate recovery	117	93-141	%	5/13/99	5/18/99

Run #: 35
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 12:28:45 PM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
30 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00259.QST

Sample ID: PIE00262

Sample Collection Date: 5/6/99

ARF: 30241

APPL ID AP78766

QCG: \$8151S-990513SA-16619

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/13/99	5/18/99
EPA 8151	-2,4-DB	Not detected	400	ug/kg	5/13/99	5/18/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/18/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Surrogate recovery	114	93-141	%	5/13/99	5/18/99

Run #: 36
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 12:28:46 PM

EPA 8151 Herbicides

Del Mar Analytical
30 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice
Project: PIE00259.QST
Sample ID: PIE00264
Sample Collection Date: 5/6/99

ARF: 30241
APPL ID AP78767
QCG: \$8151-990512WA-16620

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	0.50	ug/L	5/12/99	5/18/99
EPA 8151	Dalapon	Not detected	1.0	ug/L	5/12/99	5/18/99
EPA 8151	2,4-DB	Not detected	1.0	ug/L	5/12/99	5/18/99
EPA 8151	Dicamba	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/12/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/12/99	5/18/99
EPA 8151	MCPA	Not detected	100	ug/L	5/12/99	5/18/99
EPA 8151	MCPP	Not detected	100	ug/L	5/12/99	5/18/99
EPA 8151	2,4,5-T	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	Surrogate Recovery	72.2	61-120	%	5/12/99	5/18/99

Run #: 49
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 1:21:37 PM

EPA 8151 Herbicides

Del Mar Analytical
330 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice
Project: PIE00259.QST
Sample ID: PIE00265
Sample Collection Date: 5/6/99

ARF: 30241
APPL ID AP78768
QCG: \$8151-990512WA-16620

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	0.50	ug/L	5/12/99	5/18/99
EPA 8151	Dalapon	Not detected	1.0	ug/L	5/12/99	5/18/99
EPA 8151	-2,4-DB	Not detected	1.0	ug/L	5/12/99	5/18/99
EPA 8151	Dicamba	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/12/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/12/99	5/18/99
EPA 8151	MCPA	Not detected	100	ug/L	5/12/99	5/18/99
EPA 8151	MCPP	Not detected	100	ug/L	5/12/99	5/18/99
EPA 8151	2,4,5-T	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	Surrogate Recovery	75.7	61-120	%	5/12/99	5/18/99

Run #: 50
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 1:21:37 PM

Method Blank
EPA 8151 HERBICIDE SOIL

Blank Name/QCG: 990513S - 16619
Batch ID: S8151S-990513SA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	2,4-D	Not detected	200	ug/kg	5/13/99	5/17/99
BLANK	Dalapon	Not detected	2000	ug/kg	5/13/99	5/17/99
BLANK	2,4-DB	Not detected	400	ug/kg	5/13/99	5/17/99
BLANK	Dicamba	Not detected	40	ug/kg	5/13/99	5/17/99
BLANK	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/17/99
BLANK	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/17/99
BLANK	MCPA	Not detected	40000	ug/kg	5/13/99	5/17/99
BLANK	MCPP	Not detected	40000	ug/kg	5/13/99	5/17/99
BLANK	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/17/99
BLANK	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/17/99
BLANK	Surrogate recovery	106	93-141	%	5/13/99	5/17/99

Run #: 11
Instrument: ECD01
Sequence: 990517
Initials: KW

Printed: 5/19/99 12:29:15 PM

Laboratory Control Spike Recovery
EPA 8151 HERBICIDE SOIL

APPL ID: 990513S-78683 LCS - 16619

Batch ID: S8151S-990513SA

APPL Inc.

4203 West Swift Avenue

Fresno, CA 93722

Compound Name	Spike Level ug/kg	SPK Result ug/kg	SPK % Recovery	Recovery Limits
2,4,5-T	200	195	97.5	77-148
2,4,5-TP	200	189	94.5	87-149
2,4-D	200	222	111	90-181
Dicamba	200	191	95.5	63-149
Dichlorprop (2,4-DP)	200	201	101	91-183
Dinoseb (DNBP)	200	195	97.5	71-167
Surrogate recovery	600	641	107	93-141

Comments:

Primary	SPK
Extraction Date :	5/13/99
Analysis Date :	5/17/99
Instrument :	ECD01
Run :	12
Analyst :	KW

Printed: 5/19/99 12:29:53 PM

Matrix Spike Recoveries
EPA 8151 HERBICIDE SOIL

APPL ID 990513S-78683 MS/MSD - 16619

Batch ID: S8151S-990513SA

APPL Inc.

4203 West Swift Avenue

Fresno, CA 93722

Compound Name	Spike Level ug/kg	Matrix Result ug/kg	SPK Result ug/kg	DUP Result ug/kg	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	200	ND	213	209	107	105	77-148	1.9	27
2,4,5-TP	200	ND	202	200	101	100	87-149	1.00	27
2,4-D	200	ND	251	247	126	124	90-181	1.6	27
Dicamba	200	ND	226	225	113	113	63-149	0.44	31
Dichlorprop (2,4-DP)	200	ND	213	210	107	105	91-183	1.4	37
Dinoseb (DNBP)	200	ND	267	253	134	127	71-167	5.4	NE
Surrogate recovery	600	NA	683	676	114	113	93-141		

NE = Not established.

Comments:

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Extraction Date :	5/13/99	5/13/99
Analysis Date :	5/17/99	5/17/99
Instrument :	ECD01	ECD01
Run :	13	14
Analyst :	KW	

Method Blank
EPA 8151 Herbicides

Blank Name/QCG: 990512W - 16620
Batch ID: S8151-990512WA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	2,4-D	Not detected	0.50	ug/L	5/12/99	5/18/99
BLANK	Dalapon	Not detected	1.0	ug/L	5/12/99	5/18/99
BLANK	2,4-DB	Not detected	1.0	ug/L	5/12/99	5/18/99
BLANK	Dicamba	Not detected	0.10	ug/L	5/12/99	5/18/99
BLANK	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/12/99	5/18/99
BLANK	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/12/99	5/18/99
BLANK	MCPA	Not detected	100	ug/L	5/12/99	5/18/99
BLANK	MCPP	Not detected	100	ug/L	5/12/99	5/18/99
BLANK	2,4,5-T	Not detected	0.10	ug/L	5/12/99	5/18/99
BLANK	2,4,5-TP	Not detected	0.10	ug/L	5/12/99	5/18/99
BLANK	Surrogate recovery	89.5	61-120	%	5/12/99	5/18/99

Run #: 44
Instrument: ECD01
Sequence: 990517
Initials: KW

Laboratory Control Spike Recoveries
EPA 8151 Herbicides

APPL ID 990512W-78767 LCS/LCSD - 16620
Batch ID: S8151-990512WA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Compound Name	Spike Level ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	1.00	0.887	0.914	88.7	91.4	53-134	3.0	32
2,4,5-TP	1.00	0.840	0.848	84.0	84.8	60-118	0.95	24
2,4-D	1.00	1.06	1.10	106	110	44-155	3.7	15
Dicamba	1.00	0.933	0.962	93.3	96.2	48-102	3.1	24
Dicloroprop (2,4-DP)	1.00	0.995	0.911	89.5	91.1	37-146	1.8	18
Dinoseb (DNBP)	1.00	0.838	0.843	83.8	84.3	73-173	0.59	31
Surrogate: 2,4-DCAA	3.00	2.79	2.82	93.0	94.0	61-120		

Comments: _____

Primary	SPK	DUP
Extraction Date :	5/12/99	5/12/99
Analysis Date :	5/18/99	5/18/99
Instrument :	ECD01	ECD01
Run :	45	48
Analyst :	KW	

Matrix Spike Recovery
EPA 8151 Herbicides

APPL ID 990512W-78767 MS - 16620
 Batch ID: S8151-990512WA

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Compound Name	Spike Level ug/L	Matrix Result ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2,4,5-T	1.17	ND	0.889	76.0	53-134
2,4,5-TP	1.17	ND	0.932	71.1	60-118
2,4-D	1.17	ND	1.47	126	44-155
Clacamba	1.17	ND	1.27	109 #	48-102
Dichloroprop (2,4-DP)	1.17	ND	0.907	77.5	37-146
Dinoseb (DNBP)	1.17	ND	0.786	67.2 #	73-173
Surrogate: 2,4-DCAA	3.53	NA	2.82	79.9	61-120

= Recovery is outside QC limits.

Comments: _____

Primary	SPK
Extraction Date :	5/12/99
Analysis Date :	5/18/99
Instrument :	ECD01
Run :	47
Analyst :	KW

Matrix Spike Recovery
EPA 8151 Herbicides

APPL ID 990512W-78767 MS - 16620
Batch ID: S8151-990512WA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Compound Name	Spike Level ug/L	Matrix Result ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2,4,5-T	1.17	ND	0.792	67.7	53-134
2,4,5-TP	1.17	ND	0.766	65.5	60-118
2,4-D	1.17	ND	1.38	118	44-155
Dicamba	1.17	ND	1.20	103 #	48-102
Dichlorprop (2,4-DP)	1.17	ND	0.861	73.6	37-146
Dinoseb (DNBP)	1.17	ND	0.732	62.6 #	73-173
Surrogate: 2,4-DCAA	3.53	NA	2.65	75.1	61-120

= Recovery is outside QC limits.

Comments:

Primary	SPK
Extraction Date :	5/12/99
Analysis Date :	5/19/99
Instrument :	ECD01
Run :	89
Analyst :	KW

Method Blank

EPA 8141

Blank Name/QCG: 990513W - 16601
 Batch ID: S8141W-990513A

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	Azinphosmethyl	Not detected	5.0	ug/L	5/13/99	5/18/99
BLANK	Bolstar	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Chlorpyrifos	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Coumaphos	Not detected	1.0	ug/L	5/13/99	5/18/99
BLANK	Def	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Demeton-s	Not detected	1.0	ug/L	5/13/99	5/18/99
BLANK	Diazinon	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Dichlorvos	Not detected	1.0	ug/L	5/13/99	5/18/99
BLANK	Dimethoate	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Disulfoton	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	EPN	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Ethion	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Ethoprop	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Fensulfothion	Not detected	2.5	ug/L	5/13/99	5/18/99
BLANK	Fenthion	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Malathion	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Merphos	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Mevinphos	Not detected	3.5	ug/L	5/13/99	5/18/99
BLANK	Naled	Not detected	2.5	ug/L	5/13/99	5/18/99
BLANK	Parathion, ethyl	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Parathion, methyl	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Phorate	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Prowl	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Ronnel	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Stirophos	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Sulfotep	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Tepp	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Tokuthion	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Trichloronate	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Trifluralin	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Surrogate: Tributylphosphate	82.8	60-150	%	5/13/99	5/18/99
BLANK	Surrogate: Triphenylphosphate	76.2	76-140	%	5/13/99	5/18/99

Run #: 517027
Instrument: NPD03
Sequence: 990517
Initials: FML

Matrix , Control Spike Recoveries

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: **990513AW LCS/LCSD**
Date/Initials: 5/18/99 FML
Extraction Date: 5/13/99
Matrix Type: WATER
Units: ug/L

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery	%RPD (See below)
Phorate	2.50	0.00	1.65	66.2	1.76	70.6	6.4
Diazinon	2.50	0.00	2.51	101	2.62	105	4.2
Disulfoton	2.50	0.00	1.79	71.7	1.89	75.8	5.5
Methyl parathion	2.50	0.00	1.97	78.6	2.02	80.9	2.9
Stirophos	2.50	0.00	2.12	84.9	2.21	88.3	3.9
Ethion	2.50	0.00	1.74	69.6	1.81	72.4	4.0

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery
Tributyl phosphate	5.00	*****	4.12	82.4	4.27	85.5
Triphenyl phosphate	5.00	*****	3.88	77.7	4.17	83.4

	Primary Column		Secondary Column	
	Spike	Spk Dup	Spike	Spk Dup
Analysis Date:	5/18/99	5/18/99		
Analysis Time:	3:34 AM	4:11 AM		
Instrument:	NPD03B	NPD03B		
Column:	DB-5	DB-5		
Sample/Vial #:	28	29		
Extraction Ratio:	10/1000	10/1000		
Dilution Factor:	1	1		

Comments:

	Soil	Water	Soil RPD	Water RPD
Phorate	26-98	22-96	21	24
Diazinon	61-139	57-130	24	21
Disulfoton	14-131	47-117	26	22
Meth Parathion	63-153	55-164	19	24
Stirophos	58-140	68-128	21	25
Ethion	66-131	65-134	36	20
Tributyl phosphate	51-154	60-150	NA	NA
Triphenyl phosphate	63-151	76-140	NA	NA

MATRIX SPIKE

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: 78753 MS
Date/Initials: 5/19/99 FML
Extraction Date: 5/13/99
Matrix Type: Water
Units: ug/L

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Phorate	2.50	*****	1.81	72.3
Diazinon	2.50	*****	2.53	101
Disulfoton	2.50	*****	2.09	83.4
Methyl parathion	2.50	*****	2.21	88.2
Stirophos	2.50	*****	2.39	95.6
Ethion	2.50	*****	1.82	72.7

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Tributyl phosphate	5.00	*****	4.24	84.8
Triphenyl phosphat	5.00	*****	4.20	84.0

	Prim Col Spike	Sec Col Spike
Analysis Date:	5/18/99	
Analysis Time:	7:08 PM	
Instrument:	NPD03B	
Column:	DB-5	
Sample/Vial #:	53	
Extraction Ratio:	10/1000	
Dilution Factor:	1	

Comments:

	Soil	Water
Phorate	26-98	22-96
Diazinon	61-139	57-130
Disulfoton	14-131	47-117
Meth Parathion	63-153	55-164
Stirophos	58-140	68-128
Ethion	66-131	65-134
Tributyl phosphate	51-154	60-150
Triphenyl phosphate	63-151	76-140

Method Blank

EPA 8141 OP Pesticides

Blank Name/QCG: 990514S - 16647
 Batch ID: S8141S-990514AS

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	Azinphosmethyl	Not detected	500	ug/kg	5/14/99	5/18/99
BLANK	Bolstar	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Chlorpyrifos	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Coumaphos	Not detected	100	ug/kg	5/14/99	5/18/99
BLANK	Def	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Demeton-s	Not detected	100	ug/kg	5/14/99	5/18/99
BLANK	Diazinon	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Dichlorvos	Not detected	100	ug/kg	5/14/99	5/18/99
BLANK	Dimethoate	Not detected	100	ug/kg	5/14/99	5/18/99
BLANK	Disulfoton	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	EPN	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Ethion	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Ethoprop	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Fensulfothion	Not detected	250	ug/kg	5/14/99	5/18/99
BLANK	Fenthion	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Malathion	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Merphos	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Mevinphos	Not detected	350	ug/kg	5/14/99	5/18/99
BLANK	Naled	Not detected	250	ug/kg	5/14/99	5/18/99
BLANK	Parathion, ethyl	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Parathion, methyl	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Phorate	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Prowl	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Ronnel	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Stirophos	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Sulfotep	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	TEPP	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Tokuthion	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Trichloronate	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Trifluralin	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Surrogate: Tributylphosphate	82.1	51-154	%	5/14/99	5/18/99
BLANK	Surrogate: Triphenylphosphate	81.2	63-151	%	5/14/99	5/18/99

Run #: 517046
Instrument: NPD03
Sequence: 990517
Initials: FML

Laboratory Control Spike - LCS

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: **990514AS LCS**
Date/Initials: 5/20/99 FML
Extraction Date: 5/14/99
Matrix Type: SOIL
Units: ug/kg

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Phorate	83.3	*****	58.6	70.3
Diazinon * %	83.3	*****	702	842
Disulfoton	83.3	*****	78.6	94.3
Methyl parathion	83.3	*****	75.0	90.0
Stirophos	83.3	*****	80.5	96.6
Ethion	83.3	*****	59.6	71.6

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Tributyl phosphate	167	*****	143	85.8
Triphenyl phosphat	167	*****	140	84.1

	Prim Col Spike	Sec Col Spike
Analysis Date:	5/18/99	
Analysis Time:	3:23 PM	
Instrument:	NPD03B	
Column:	DB-5	
Sample/Vial #:	47	
Extraction Ratio:	10/30	
Dilution Factor:	1	

Comments:	* Diazinon reported from 517097, DF 1:10.
	% Diazinon out of QC limits, possible sample contamination .

	Soil	Water
Phorate	26-98	22-96
Diazinon	61-139	57-130
Disulfoton	14-131	47-117
Meth Parathion	63-153	55-164
Stirophos	58-140	68-128
Ethion	66-131	65-134
Tributyl phosphate	51-154	60-150
Triphenyl phosphate	63-151	76-140

CHAIN OF CUSTODY FORM

Quote # _____ Page 1 of 3

Client Name/Address: QST ENVIRONMENTAL 420 N 4TH ST, PO BOX 110 PHOENIX, AZ		Project/PO Number: ESTS 1000000 L099000		Analysis Required									
Project Manager: JOHN MIEHR		Phone Number:		(Columns for analysis: TOC, SVOC, PCB, PAH, CHLORINATED HYDROCARBONS, PESTICIDES, METALS, etc.)									
Sampler: PATRICIA GARDNER		Fax Number:											
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	TOC	SVOC	PCB	PAH	CHLORINATED HYDROCARBONS	PESTICIDES	METALS	Special Instructions
QST-05 (2/20) 5 5 7	SOIL	2-355	5	2-25-99 14:35	CHLORINATED HYDROCARBONS								CHLORINATED HYDROCARBONS
QST-05 (2/20) 5 5 7	SOIL	2-355	5	2-25-99 14:35	CHLORINATED HYDROCARBONS								
QST-06 (3/20) (1) (9)	SOIL	2-355	2	3-20-99 07:00	CHLORINATED HYDROCARBONS	1	1						
QST-06 (3/20) (1) (9)	SOIL	2-355	2	3-20-99 07:00	CHLORINATED HYDROCARBONS	1	1						
Relinquished By: <i>[Signature]</i>		Date /Time: <i>[Date]</i>		Received by: <i>[Signature]</i>		Date /Time: <i>[Date]</i>		Turnaround Time: (Check) <i>Next</i>					
Relinquished By: <i>[Signature]</i>		Date /Time: <i>[Date]</i>		Received by: <i>[Signature]</i>		Date /Time: <i>[Date]</i>		same day _____ 72 hours _____					
Relinquished By: <i>[Signature]</i>		Date /Time: <i>[Date]</i>		Received in Lab by: <i>[Signature]</i>		Date /Time: <i>[Date]</i>		24 hours _____ 5 days _____					
Relinquished By: <i>[Signature]</i>		Date /Time: <i>[Date]</i>		Received in Lab by: <i>[Signature]</i>		Date /Time: <i>[Date]</i>		48 hours _____ normal _____					
Relinquished By: <i>[Signature]</i>		Date /Time: <i>[Date]</i>		Received in Lab by: <i>[Signature]</i>		Date /Time: <i>[Date]</i>		Sample Integrity: (Check)					
Relinquished By: <i>[Signature]</i>		Date /Time: <i>[Date]</i>		Received in Lab by: <i>[Signature]</i>		Date /Time: <i>[Date]</i>		intact _____ on ice _____					

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

CHAIN OF CUSTODY FORM

Quote # _____ Page 2 of 2

Client Name/Address, Project/PO Number, Analysis Required, Project Manager, Phone Number, Fax Number, Sampler, Sample Description, Sample Matrix, Container Type, # of Cont, Sampling Date/Time, Preservatives, Special Instructions, Relinquished By, Received by, Date /Time, Turnaround Time, Sample Integrity.

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

CHAIN OF CUSTODY FORM

Quote # _____ Page 1 of 1

Client Name/Address: <i>QSI</i> <i>7500 W. 4th Street</i> <i>Phoenix, AZ 85044</i>						Project/PO Number: <i>20000000</i> <i>00000000</i>						Analysis Required								
Project Manager: <i>Jane Smith</i>						Phone Number: <i>602 785 0043</i>														
Sampler: <i>John Doe</i>						Fax Number: <i>602 785 0851</i>														
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives															
<i>DISEASE CONTROL</i>	<i>U65</i>	<i>1000</i>	<i>5</i>	<i>10/10/20</i>	<i>14500</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>
<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Report Number: PIE00321

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 7-18, 1999
 Analyzed: May 10-24, 1999
 Reported: May 25, 1999

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PIE00321	QST-B14-(GW/80) -5-6-99	Water	8260B, 8270, 200.7, 245.1, 8081A, 8082, 8141A & 8151
PIE00322	Trip Blank	Water	8260B
PIE00323	QST-B15-(GW/85) -(5-6-99)	Water	8260B, 8270, 200.7, 245.1, 8081A, 8082, 8141A & 8151
PIE00324	QST-B14-(S/50) -5-6-99	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00325	QST-B14-(S/76) -5-6-99	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00326	QST-B15(S/39) -(5-6-99)	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00327	QST-B15(S/66) -(5-6-99)	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation. Soil volatiles were submitted in Encore sample containers.

HOLDING TIMES: Holding times were met.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: One or more method QA/QC parameters exceeded acceptance limits. See Corrective Action Report.

OBSERVATIONS: No significant observations were made.

SUBCONTRACTED: The 8141A & 8151 analysis was performed at APPL. Results are attached.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)


 Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B14-(GW/80)-5-6-99
 Lab Number: PIE00321

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)		
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	57%
Decachlorobiphenyl (30-130).....	52%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, QST-B15-(GW/85)-(5-6-99)
 Lab Number: PIE00323

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)		µg/L (ppb)
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	59%
Decachlorobiphenyl (30-130).....	44%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00321.QST <3 of 42>

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B14-(S/50)-5-6-99
 Lab Number: PIE00324

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 25, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		
Aldrin.....	50	.....	N.D.
alpha-BHC.....	50	.....	N.D.
beta-BHC.....	50	.....	N.D.
delta-BHC.....	100	.....	N.D.
gamma-BHC (Lindane).....	50	.....	N.D.
Chlordane.....	1,000	.....	N.D.
4,4'-DDD.....	50	.....	N.D.
4,4'-DDE.....	50	.....	N.D.
4,4'-DDT.....	50	.....	N.D.
Dieldrin.....	50	.....	N.D.
Endosulfan I.....	50	.....	N.D.
Endosulfan II.....	50	.....	N.D.
Endosulfan sulfate.....	200	.....	N.D.
Endrin.....	50	.....	N.D.
Endrin aldehyde.....	50	.....	N.D.
Heptachlor.....	50	.....	N.D.
Heptachlor epoxide.....	50	.....	N.D.
Methoxychlor.....	50	.....	N.D.
Toxaphene.....	2,000	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

> R.P.

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	Diluted out
Decachlorobiphenyl (30-130).....	Diluted out



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B14-(S/76)-5-6-99
 Lab Number: PIE00325

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 25, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		µg/Kg (ppb)
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	72%
Decachlorobiphenyl (30-130).....	81%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieber

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B15(S/39)-(5-6-99)
 Lab Number: PIE00326

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 25, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)			$\mu\text{g/Kg}$ (ppb)
Aldrin.....	50	.....	N.D.
alpha-BHC.....	50	.....	N.D.
beta-BHC.....	50	.....	N.D.
delta-BHC.....	100	.....	N.D.
gamma-BHC (Lindane).....	50	.....	N.D.
Chlordane.....	1,000	.....	N.D.
4,4'-DDD.....	50	.....	N.D.
4,4'-DDE.....	50	.....	N.D.
4,4'-DDT.....	50	.....	N.D.
Dieldrin.....	50	.....	N.D.
Endosulfan I.....	50	.....	N.D.
Endosulfan II.....	50	.....	N.D.
Endosulfan sulfate.....	200	.....	N.D.
Endrin.....	50	.....	N.D.
Endrin aldehyde.....	50	.....	N.D.
Heptachlor.....	50	.....	N.D.
Heptachlor epoxide.....	50	.....	N.D.
Methoxychlor.....	50	.....	N.D.
Toxaphene.....	2,000	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	Diluted out
Decachlorobiphenyl (30-130).....	Diluted out

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B15(S/66)-(5-6-99)
 Lab Number: PIE00327

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 25, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)		
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	75%
Decachlorobiphenyl (30-130).....	87%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Coolay Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, QST-B14-(GW/80)-5-6-99
 Lab Number: PIE00321

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)		
Aroclor 1016.....	1.0	.....	N.D.
Aroclor 1221.....	1.0	.....	N.D.
Aroclor 1232.....	1.0	.....	N.D.
Aroclor 1242.....	1.0	.....	N.D.
Aroclor 1248.....	1.0	.....	N.D.
Aroclor 1254.....	1.0	.....	N.D.
Aroclor 1260.....	1.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	53%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, QST-B15-(GW/85)-(5-6-99)
 Lab Number: PIE00323

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)		
Aroclor 1016.....	1.0	.....	N.D.
Aroclor 1221.....	1.0	.....	N.D.
Aroclor 1232.....	1.0	.....	N.D.
Aroclor 1242.....	1.0	.....	N.D.
Aroclor 1248.....	1.0	.....	N.D.
Aroclor 1254.....	1.0	.....	N.D.
Aroclor 1260.....	1.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	44%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B14-(S/50)-5-6-99
 Lab Number: PIE00324

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 13, 1999
 Reported: May 25, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		
Aroclor 1016.....	250	.....	N.D.
Aroclor 1221.....	250	.....	N.D.
Aroclor 1232.....	250	.....	N.D.
Aroclor 1242.....	250	.....	N.D.
Aroclor 1248.....	250	.....	N.D.
Aroclor 1254.....	250	.....	N.D.
Aroclor 1260.....	250	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



R.P.

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	Diluted out

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B14-(S/76)-5-6-99
 Lab Number: PIE00325

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 13, 1999
 Reported: May 25, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)			$\mu\text{g/Kg}$ (ppb)
Aroclor 1016.....	50	.....	N.D.
Aroclor 1221.....	50	.....	N.D.
Aroclor 1232.....	50	.....	N.D.
Aroclor 1242.....	50	.....	N.D.
Aroclor 1248.....	50	.....	N.D.
Aroclor 1254.....	50	.....	N.D.
Aroclor 1260.....	50	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	79%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00321.QST <11 of 42>



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9404 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B15(S/39)-(5-6-99)
 Lab Number: PIE00326

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 19, 1999
 Reported: May 25, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		µg/Kg (ppb)
Aroclor 1016.....	50	.....	N.D.
Aroclor 1221.....	50	.....	N.D.
Aroclor 1232.....	50	.....	N.D.
Aroclor 1242.....	50	.....	N.D.
Aroclor 1248.....	50	.....	N.D.
Aroclor 1254.....	50	.....	130
Aroclor 1260.....	50	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	32%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B15(S/66)-(5-6-99)
 Lab Number: PIE00327

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 13, 1999
 Reported: May 25, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	50	N.D.
Aroclor 1221.....	50	N.D.
Aroclor 1232.....	50	N.D.
Aroclor 1242.....	50	N.D.
Aroclor 1248.....	50	N.D.
Aroclor 1254.....	50	N.D.
Aroclor 1260.....	50	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	81%



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B14-(GW/80)-5-6-99
 Lab Number: PIE00321

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	4.5	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

R.R.
 Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	91%
Toluene-d8 (75-140).....	93%
4-Bromofluorobenzene (75-135).....	91%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00321.QST <14 of 42>

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieber

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, Trip Blank
 Lab Number: PIE00322

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	92%
Toluene-d8 (75-140).....	93%
4-Bromofluorobenzene (75-135).....	90%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00321.QST <15 of 42>

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B15-(GW/85)-(5-6-99)
 Lab Number: PIE00323

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene..	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	5.4	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	93%
Toluene-d8 (75-140).....	93%
4-Bromofluorobenzene (75-135).....	90%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Collon, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B14-(S/50)-5-6-99
 Lab Number: PIE00324

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 7, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	650	N.D.	1,3-Dichloropropane.....	130	N.D.
Benzene.....	130	N.D.	2,2-Dichloropropane.....	130	N.D.
Bromobenzene.....	330	N.D.	1,1-Dichloropropene.....	130	N.D.
Bromochloromethane.....	330	N.D.	cis-1,3-Dichloropropene.....	130	N.D.
Bromodichloromethane.....	130	N.D.	trans-1,3-Dichloropropene....	130	N.D.
Bromoform.....	330	N.D.	Ethylbenzene.....	130	N.D.
Bromomethane.....	330	N.D.	Hexachlorobutadiene.....	330	N.D.
2-Butanone (MEK).....	650	N.D.	2-Hexanone.....	650	N.D.
n-Butylbenzene.....	330	N.D.	Iodomethane.....	130	N.D.
sec-Butylbenzene.....	330	N.D.	Isopropylbenzene.....	130	N.D.
tert-Butylbenzene.....	330	N.D.	p-Isopropyltoluene.....	130	N.D.
Carbon Disulfide.....	330	N.D.	Methylene chloride.....	650	N.D.
Carbon tetrachloride.....	330	N.D.	4-Methyl-2-pentanone (MIBK).....	330	N.D.
Chlorobenzene.....	130	N.D.	Methyl-tert-butyl ether (MTBE).....	330	N.D.
Chloroethane.....	330	N.D.	Naphthalene.....	330	2,300
2-Chloroethyl vinyl ether.....	330	N.D.	n-Propylbenzene.....	130	N.D.
Chloroform.....	130	N.D.	Styrene.....	130	N.D.
Chloromethane.....	330	N.D.	1,1,1,2-Tetrachloroethane....	330	N.D.
2-Chlorotoluene.....	330	N.D.	1,1,2,2-Tetrachloroethane....	130	N.D.
4-Chlorotoluene.....	330	N.D.	Tetrachloroethene.....	130	N.D.
Dibromochloromethane.....	130	N.D.	Toluene.....	130	N.D.
1,2-Dibromo-3-chloropropane.....	330	N.D.	1,2,3-Trichlorobenzene.....	330	N.D.
1,2-Dibromoethane (EDB).....	130	N.D.	1,2,4-Trichlorobenzene.....	330	N.D.
Dibromomethane.....	130	N.D.	1,1,1-Trichloroethane.....	130	N.D.
1,2-Dichlorobenzene.....	130	N.D.	1,1,2-Trichloroethane.....	130	N.D.
1,3-Dichlorobenzene.....	130	N.D.	Trichloroethene.....	130	N.D.
1,4-Dichlorobenzene.....	130	270	Trichlorofluoromethane.....	330	N.D.
Dichlorodifluoromethane.....	330	N.D.	1,2,3-Trichloropropane.....	650	N.D.
1,1-Dichloroethane.....	130	N.D.	1,2,4-Trimethylbenzene.....	130	260
1,2-Dichloroethane.....	130	N.D.	1,3,5-Trimethylbenzene.....	130	N.D.
1,1-Dichloroethene.....	330	N.D.	Vinyl acetate.....	330	N.D.
cis-1,2-Dichloroethene.....	130	N.D.	Vinyl chloride.....	330	N.D.
trans-1,2-Dichloroethene.....	130	N.D.	Xylenes (Total).....	390	N.D.
1,2-Dichloropropane.....	130	N.D.			

*Due to sample matrix effects, the surrogate recovery was outside acceptance limits.

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 1.3.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	54%*
Toluene-d8 (50-135).....	56%
4-Bromofluorobenzene (70-130).....	54%*

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00321.QST <17 of 42>

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B14-(S/76)-5-6-99
 Lab Number: PIE00325

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 7, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	75%
Toluene-d8 (50-135).....	79%
4-Bromofluorobenzene (70-130).....	79%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B15(S/39)-(5-6-99)
 Lab Number: PIE00326

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 7, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene....	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	76%
Toluene-d8 (50-135).....	83%
4-Bromofluorobenzene (70-130).....	80%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B15(S/66)-(5-6-99)
 Lab Number: PIE00327

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 7, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene....	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	77%
Toluene-d8 (50-135).....	83%
4-Bromofluorobenzene (70-130).....	79%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, QST-B14-(GW/80)-5-6-99
 Lab Number: PIE00321

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 10, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzdine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene..	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine..	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine
 Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	75%
Phenol-d6 (40-115).....	84%
2,4,6-Tribromophenol (40-140).....	95%
Nitrobenzene-d5 (35-120).....	75%
2-Fluorobiphenyl (30-150).....	88%
Terphenyl-d14 (45-150).....	83%

Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B15-(GW/85)-(5-6-99)
 Lab Number: PIE00323

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 10, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene..	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	13
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine..	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	52%
Phenol-d6 (40-115).....	64%
2,4,6-Tribromophenol (40-140).....	85%
Nitrobenzene-d5 (35-120).....	51%
2-Fluorobiphenyl (30-150).....	66%
Terphenyl-d14 (45-150).....	82%

Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B14-(S/50)-5-6-99
 Lab Number: PIE00324

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: May 25, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	2,000	N.D.	Dimethyl phthalate.....	2,000	N.D.
Acenaphthylene.....	2,000	N.D.	4,6-Dinitro-2-methylphenol.....	5,000	N.D.
Aniline.....	3,000	N.D.	2,4-Dinitrophenol.....	5,000	N.D.
Anthracene.....	2,000	N.D.	2,4-Dinitrotoluene.....	2,000	N.D.
Azobenzene.....	3,000	N.D.	2,6-Dinitrotoluene.....	2,000	N.D.
Benzidine.....	20,000	N.D.	Di-N-octyl phthalate.....	10,000	N.D.
Benzoic Acid.....	10,000	N.D.	Fluoranthene.....	2,000	N.D.
Benz(a)anthracene.....	2,000	N.D.	Fluorene.....	2,000	N.D.
Benzo(b)fluoranthene.....	4,000	N.D.	Hexachlorobenzene.....	2,000	N.D.
Benzo(k)fluoranthene.....	4,000	N.D.	Hexachlorobutadiene.....	2,000	N.D.
Benzo(g,h,i)perylene.....	3,000	N.D.	Hexachlorocyclopentadiene.....	10,000	N.D.
Benzo(a)pyrene.....	3,000	N.D.	Hexachloroethane.....	4,000	N.D.
Benzyl alcohol.....	4,000	N.D.	Indeno(1,2,3-cd)pyrene.....	4,000	N.D.
Bis(2-chloroethoxy)methane.....	2,000	N.D.	Isophorone.....	2,000	N.D.
Bis(2-chloroethyl)ether.....	2,000	N.D.	2-Methylnaphthalene.....	2,000	N.D.
Bis(2-chloroisopropyl)ether.....	2,000	N.D.	2-Methylphenol.....	3,000	N.D.
Bis(2-ethylhexyl)phthalate.....	20,000	N.D.	4-Methylphenol.....	3,000	N.D.
4-Bromophenyl phenyl ether.....	3,000	N.D.	Naphthalene.....	3,000	5,800
Butyl benzyl phthalate.....	10,000	N.D.	2-Nitroaniline.....	4,000	N.D.
4-Chloroaniline.....	2,000	N.D.	3-Nitroaniline.....	4,000	N.D.
2-Chloronaphthalene.....	2,000	N.D.	4-Nitroaniline.....	10,000	N.D.
4-Chloro-3-methylphenol.....	2,000	N.D.	Nitrobenzene.....	10,000	N.D.
2-Chlorophenol.....	5,000	N.D.	2-Nitrophenol.....	2,000	N.D.
4-Chlorophenyl phenyl ether.....	2,000	N.D.	4-Nitrophenol.....	10,000	N.D.
Chrysene.....	2,000	N.D.	N-Nitrosodiphenylamine.....	4,000	N.D.
Dibenz(a,h)anthracene.....	2,000	N.D.	N-Nitroso-di-N-propylamine.....	3,000	N.D.
Dibenzofuran.....	2,000	N.D.	Pentachlorophenol.....	10,000	N.D.
Di-N-butyl phthalate.....	5,000	N.D.	Phenanthrene.....	2,000	N.D.
1,3-Dichlorobenzene.....	2,000	N.D.	Phenol.....	3,000	N.D.
1,4-Dichlorobenzene.....	2,000	N.D.	Pyrene.....	3,000	N.D.
1,2-Dichlorobenzene.....	2,000	N.D.	1,2,4-Trichlorobenzene.....	2,000	N.D.
3,3-Dichlorobenzidine.....	10,000	N.D.	2,4,5-Trichlorophenol.....	3,000	N.D.
2,4-Dichlorophenol.....	2,000	N.D.	2,4,6-Trichlorophenol.....	3,000	N.D.
Diethyl phthalate.....	2,000	N.D.			
2,4-Dimethylphenol.....	5,000	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 20.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	Diluted out
Phenol-d6 (24-113).....	Diluted out
2,4,6-Tribromophenol (19-122).....	Diluted out
Nitrobenzene-d5 (23-120).....	Diluted out
2-Fluorobiphenyl (30-115).....	Diluted out
Terphenyl-d14 (18-137).....	Diluted out

R.R.
 Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B14-(S/76)-5-6-99
 Lab Number: PIE00325

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: May 25, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	1,200	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	95%
Phenol-d6 (24-113).....	98%
2,4,6-Tribromophenol (19-122).....	116%
Nitrobenzene-d5 (23-120).....	81%
2-Fluorobiphenyl (30-115).....	107%
Terphenyl-d14 (18-137).....	96%

Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B15(S/39)-(5-6-99)
 Lab Number: PIE00326

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: May 25, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	1,000	N.D.	Dimethyl phthalate.....	1,000	N.D.
Acenaphthylene.....	1,000	N.D.	4,6-Dinitro-2-methylphenol.....	2,500	N.D.
Aniline.....	1,500	N.D.	2,4-Dinitrophenol.....	2,500	N.D.
Anthracene.....	1,000	N.D.	2,4-Dinitrotoluene.....	1,000	N.D.
Azobenzene.....	1,500	N.D.	2,6-Dinitrotoluene.....	1,000	N.D.
Benzidine.....	10,000	N.D.	Di-N-octyl phthalate.....	5,000	N.D.
Benzoic Acid.....	5,000	N.D.	Fluoranthene.....	1,000	N.D.
Benz(a)anthracene.....	1,000	N.D.	Fluorene.....	1,000	N.D.
Benzo(b)fluoranthene.....	2,000	N.D.	Hexachlorobenzene.....	1,000	N.D.
Benzo(k)fluoranthene.....	2,000	N.D.	Hexachlorobutadiene.....	1,000	N.D.
Benzo(g,h,i)perylene.....	1,500	N.D.	Hexachlorocyclopentadiene.....	5,000	N.D.
Benzo(a)pyrene.....	1,500	N.D.	Hexachloroethane.....	2,000	N.D.
Benzyl alcohol.....	2,000	N.D.	Indeno(1,2,3-cd)pyrene.....	2,000	N.D.
Bis(2-chloroethoxy)methane.....	1,000	N.D.	Isophorone.....	1,000	N.D.
Bis(2-chloroethyl)ether.....	1,000	N.D.	2-Methylnaphthalene.....	1,000	N.D.
Bis(2-chloroisopropyl)ether.....	1,000	N.D.	2-Methylphenol.....	1,500	N.D.
Bis(2-ethylhexyl)phthalate.....	10,000	N.D.	4-Methylphenol.....	1,500	N.D.
4-Bromophenyl phenyl ether.....	1,500	N.D.	Naphthalene.....	1,500	N.D.
Butyl benzyl phthalate.....	5,000	N.D.	2-Nitroaniline.....	2,000	N.D.
4-Chloroaniline.....	1,000	N.D.	3-Nitroaniline.....	2,000	N.D.
2-Chloronaphthalene.....	1,000	N.D.	4-Nitroaniline.....	5,000	N.D.
4-Chloro-3-methylphenol.....	1,000	N.D.	Nitrobenzene.....	5,000	N.D.
2-Chlorophenol.....	2,500	N.D.	2-Nitrophenol.....	1,000	N.D.
4-Chlorophenyl phenyl ether.....	1,000	N.D.	4-Nitrophenol.....	5,000	N.D.
Chrysene.....	1,000	N.D.	N-Nitrosodiphenylamine.....	2,000	N.D.
Dibenz(a,h)anthracene.....	1,000	N.D.	N-Nitroso-di-N-propylamine.....	1,500	N.D.
Dibenzofuran.....	1,000	N.D.	Pentachlorophenol.....	5,000	N.D.
Di-N-butyl phthalate.....	2,500	N.D.	Phenanthrene.....	1,000	N.D.
1,3-Dichlorobenzene.....	1,000	N.D.	Phenol.....	1,500	N.D.
1,4-Dichlorobenzene.....	1,000	N.D.	Pyrene.....	1,500	N.D.
1,2-Dichlorobenzene.....	1,000	N.D.	1,2,4-Trichlorobenzene.....	1,000	N.D.
3,3-Dichlorobenzidine.....	5,000	N.D.	2,4,5-Trichlorophenol.....	1,500	N.D.
2,4-Dichlorophenol.....	1,000	N.D.	2,4,6-Trichlorophenol.....	1,500	N.D.
Diethyl phthalate.....	1,000	N.D.			
2,4-Dimethylphenol.....	2,500	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 10.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	84%
Phenol-d6 (24-113).....	93%
2,4,6-Tribromophenol (19-122).....	106%
Nitrobenzene-d5 (23-120).....	80%
2-Fluorobiphenyl (30-115).....	96%
Terphenyl-d14 (18-137).....	110%

Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B15(S/66)-(5-6-99)
 Lab Number: PIE00327

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: May 25, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	90%
Phenol-d6 (24-113).....	94%
2,4,6-Tribromophenol (19-122).....	107%
Nitrobenzene-d5 (23-120).....	78%
2-Fluorobiphenyl (30-115).....	102%
Terphenyl-d14 (18-137).....	87%

Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B14-(GW/80)-5-6-99
 Lab Number: PIE00321

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 10, 1999
 Analyzed: May 10-19, 1999
 Reported: May 25, 1999

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/10/99	05/19/99
Arsenic.....	EPA 200.7	0.050	0.27	05/10/99	05/11/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/10/99	05/11/99
Cadmium.....	EPA 200.7	0.0050	N.D.	05/10/99	05/11/99
Chromium.....	EPA 200.7	0.010	0.056	05/10/99	05/11/99
Copper.....	EPA 200.7	0.020	0.41	05/10/99	05/11/99
Lead.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Mercury.....	EPA 245.1	0.00020	0.00022	05/10/99	05/10/99
Nickel.....	EPA 200.7	0.050	0.20	05/10/99	05/11/99
Selenium.....	EPA 200.7	0.060	N.D.	05/10/99	05/11/99
Silver.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Thallium.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Zinc.....	EPA 200.7	0.050	0.067	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B15-(GW/85)-(5-6-99)
 Lab Number: PIE00323

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 10, 1999
 Analyzed: May 10-19, 1999
 Reported: May 25, 1999

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/10/99	05/19/99
Arsenic.....	EPA 200.7	0.050	0.53	05/10/99	05/11/99
Beryllium.....	EPA 200.7	0.10*	N.D.	05/10/99	05/19/99
Cadmium.....	EPA 200.7	0.0050	0.025	05/10/99	05/11/99
Chromium.....	EPA 200.7	0.010	0.86	05/10/99	05/11/99
Copper.....	EPA 200.7	0.020	3.4	05/10/99	05/11/99
Lead.....	EPA 200.7	0.050	0.49	05/10/99	05/11/99
Mercury.....	EPA 245.1	0.00020	0.0025	05/10/99	05/10/99
Nickel.....	EPA 200.7	0.050	0.86	05/10/99	05/11/99
Selenium.....	EPA 200.7	0.060	N.D.	05/10/99	05/19/99
Silver.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Thallium.....	EPA 200.7	0.050	0.092	05/10/99	05/11/99
Zinc.....	EPA 200.7	0.050	0.69	05/10/99	05/11/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B14-(S/50)-5-6-99
 Lab Number: PIE00324

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 10-14, 1999
 Analyzed: May 11-24, 1999
 Reported: May 25, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	20*	N.D.	05/10/99	05/19/99
Arsenic.....	EPA 6010B	20*	N.D.(C)	05/10/99	05/19/99
Beryllium.....	EPA 6010B	50*	N.D.	05/10/99	05/24/99
Cadmium.....	EPA 6010B	0.50	12	05/10/99	05/11/99
Chromium.....	EPA 6010B	2.0	8.5	05/10/99	05/11/99
Copper.....	EPA 6010B	2.5	120	05/10/99	05/11/99
Lead.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Mercury.....	EPA 7471A	0.020	0.24	05/14/99	05/14/99
Nickel.....	EPA 6010B	2.5	35	05/10/99	05/11/99
Selenium.....	EPA 6010B	100*	N.D.	05/10/99	05/22/99
Silver.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Thallium.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Zinc.....	EPA 6010B	2.5	350	05/10/99	05/11/99

C = Continuing Calibration Verification recovery was above the method control limits; Data not impacted.

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B14-(S/76)-5-6-99
 Lab Number: PIE00325

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 10-18, 1999
 Analyzed: May 11-24, 1999
 Reported: May 25, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Arsenic.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/10/99	05/24/99
Cadmium.....	EPA 6010B	0.50	1.1	05/10/99	05/11/99
Chromium.....	EPA 6010B	2.0	27	05/10/99	05/11/99
Copper.....	EPA 6010B	2.5	45	05/10/99	05/11/99
Lead.....	EPA 6010B	2.5	3.8	05/10/99	05/11/99
Mercury.....	EPA 7471A	0.020	0.024	05/14/99	05/14/99
Nickel.....	EPA 6010B	2.5	20	05/10/99	05/11/99
Selenium.....	EPA 6010B	10	N.D.	05/10/99	05/11/99
Silver.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Thallium.....	EPA 6010B	5.0	6.6	05/10/99	05/11/99
Zinc.....	EPA 6010B	2.5	25	05/18/99	05/22/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B15(S/39)-(5-6-99)
 Lab Number: PIE00326

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 10-12, 1999
 Analyzed: May 11-22, 1999
 Reported: May 25, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Arsenic.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/10/99	05/22/99
Cadmium.....	EPA 6010B	0.50	2.7	05/10/99	05/11/99
Chromium.....	EPA 6010B	2.0	24	05/10/99	05/11/99
Copper.....	EPA 6010B	2.5	46	05/10/99	05/11/99
Lead.....	EPA 6010B	2.5	88	05/10/99	05/11/99
Mercury.....	EPA 7471A	0.020	0.080	05/12/99	05/12/99
Nickel.....	EPA 6010B	2.5	22	05/10/99	05/11/99
Selenium.....	EPA 6010B	10	N.D.	05/10/99	05/11/99
Silver.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Thallium.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Zinc.....	EPA 6010B	2.5	320	05/10/99	05/11/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B15(S/66)-(5-6-99)
 Lab Number: PIE00327

Sampled: May 6, 1999
 Received: May 7, 1999
 Extracted: May 10-18, 1999
 Analyzed: May 11-24, 1999
 Reported: May 25, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/18/99	05/22/99
Arsenic.....	EPA 6010B	5.0	14	05/10/99	05/11/99
Beryllium.....	EPA 6010B	0.50	N.D.	05/10/99	05/24/99
Cadmium.....	EPA 6010B	0.50	1.4	05/10/99	05/11/99
Chromium.....	EPA 6010B	2.0	21	05/10/99	05/11/99
Copper.....	EPA 6010B	2.5	72	05/10/99	05/11/99
Lead.....	EPA 6010B	2.5	4.4	05/10/99	05/11/99
Mercury.....	EPA 7471A	0.020	0.021	05/12/99	05/12/99
Nickel.....	EPA 6010B	2.5	55	05/10/99	05/11/99
Selenium.....	EPA 6010B	10	N.D.	05/10/99	05/11/99
Silver.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Thallium.....	EPA 6010B	5.0	6.1	05/10/99	05/11/99
Zinc.....	EPA 6010B	2.5	47	05/18/99	05/22/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999
 Matrix: Water

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)			µg/L (ppb)
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	84%
Decachlorobiphenyl (30-130).....	80%

Robyn Rice
 Project Manager

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 12, 1999
 Analyzed: May 13, 1999
 Reported: May 25, 1999
 Matrix: Soil

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		µg/Kg (ppb)
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	91%
Decachlorobiphenyl (30-130).....	98%

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999
 Matrix: Water

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/L}$ (ppb)			$\mu\text{g/L}$ (ppb)
Aroclor 1016.....	1.0	.....	N.D.
Aroclor 1221.....	1.0	.....	N.D.
Aroclor 1232.....	1.0	.....	N.D.
Aroclor 1242.....	1.0	.....	N.D.
Aroclor 1248.....	1.0	.....	N.D.
Aroclor 1254.....	1.0	.....	N.D.
Aroclor 1260.....	1.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Tetrachloro-m-xylene (30-130)....	94%
Decachlorobiphenyl (30-130).....	85%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 12, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999
 Matrix: Soil

POLYCHLORINATED BIPHENYLS by GC (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	50	N.D.
Aroclor 1221.....	50	N.D.
Aroclor 1232.....	50	N.D.
Aroclor 1242.....	50	N.D.
Aroclor 1248.....	50	N.D.
Aroclor 1254.....	50	N.D.
Aroclor 1260.....	50	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	77%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 21, 1999
 Matrix: Water

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

*See Corrective Action Report.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	73%
Toluene-d8 (75-140).....	75%
4-Bromofluorobenzene (75-135).....	73%*

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 7, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999
 Matrix: Soil

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene....	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	85%
Toluene-d8 (50-135).....	91%
4-Bromofluorobenzene (70-130).....	85%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 10, 1999
 Analyzed: May 12, 1999
 Reported: May 25, 1999
 Matrix: Water

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene..	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine..	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	81%
Phenol-d6 (40-115).....	86%
2,4,6-Tribromophenol (40-140).....	97%
Nitrobenzene-d5 (35-120).....	74%
2-Fluorobiphenyl (30-150).....	88%
Terphenyl-d14 (45-150).....	80%

Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 10, 1999
 Analyzed: May 11, 1999
 Reported: May 25, 1999
 Matrix: Soil

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121).....	86%
Phenol-d6 (24-113).....	89%
2,4,6-Tribromophenol (19-122).....	103%
Nitrobenzene-d5 (23-120).....	75%
2-Fluorobiphenyl (30-115).....	91%
Terphenyl-d14 (18-137).....	89%

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 10, 1999
 Analyzed: May 10-19, 1999
 Reported: May 25, 1999
 Matrix: Water

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/10/99	05/19/99
Arsenic.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/10/99	May 11-19, 1999
Cadmium.....	EPA 200.7	0.0050	N.D.	05/10/99	05/11/99
Chromium.....	EPA 200.7	0.010	N.D.	05/10/99	05/11/99
Copper.....	EPA 200.7	0.020	N.D.	05/10/99	05/11/99
Lead.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Mercury.....	EPA 245.1	0.00020	N.D.	05/10/99	05/10/99
Nickel.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Selenium.....	EPA 200.7	0.060	N.D.	05/10/99	May 11-19, 1999
Silver.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Thallium.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Zinc.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 10-14, 1999
 Analyzed: May 10-24, 1999
 Reported: May 25, 1999
 Matrix: Soil

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	May 10-18, 1999	May 11-22, 1999
Arsenic.....	EPA 6010B	5.0	N.D.	05/10/99	May 11-19, 1999
Beryllium.....	EPA 6010B	0.50	N.D.	05/10/99	May 22-24, 1999
Cadmium.....	EPA 6010B	0.50	N.D.	05/10/99	05/11/99
Chromium.....	EPA 6010B	2.0	N.D.	05/10/99	05/11/99
Copper.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Lead.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Mercury.....	EPA 7471A	0.020	N.D.	May 12-14, 1999	May 12-14, 1999
Nickel.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Selenium.....	EPA 6010B	10	N.D.	05/10/99	May 11-22, 1999
Silver.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Thallium.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Zinc.....	EPA 6010B	2.5	N.D.	May 10-18, 1999	May 11-22, 1999

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



MS/MSD DATA REPORT

EPA Method: 8081
 Matrix: Water
 Instrument: GC

Date: 05/12/99
 Sample #: LCS/LCSD*
 Batch #: IE11PE1W

Acceptance Limits

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
DDE	0	0.5	0.388	0.416	78%	83%	7%	40	55-125
DDD	0	0.5	0.410	0.442	82%	88%	8%	20	60-130
DDT	0	0.5	0.430	0.469	86%	94%	9%	20	55-145

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provide

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) Note: This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



MS/MSD DATA REPORT

EPA Method: 8081A
 Matrix: Soil
 Instrument: GC

Date: 5/13/99
 Sample #: LCS/LCSD*
 Batch #: IE12PE1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
DDE	0	20	18.6	17.5	93%	88%	6%	50	20-145
DDD	0	20	20.4	18.8	102%	94%	8%	30	50-130
DDT	0	20	22.6	21.3	113%	107%	6%	30	20-160

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
 Sp..... Spike Concentration added to sample
 MS..... Matrix Spike Result
 MSD..... Matrix Spike Duplicate Result
 PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
 PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
 RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
 Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

GC CALIBRATION CHECK CRITERIA

Method: 8081A
 QC Batch: E13 #10

Associated Samples: PIE00321

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
D-BHC	1	117

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

GC CALIBRATION CHECK CRITERIA

Method: 8081A
QC Batch: E13 #23

Associated Samples: PIE00321

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
B-BHC	2	72
D-BHC	1	127
DDT	1	116
Endosulfan Sulfate	1	117
Methoxychlor	1	117
Endrin Ketone	1	122

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



GC CALIBRATION CHECK CRITERIA

Method: 8081A
 QC Batch: E13 #33

Associated Samples: PIE00321
 3

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
B-BHC	2	84
D-BHC	1	127
Endrin Ketone	1	118

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

GC CALIBRATION CHECK CRITERIA

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Method: 8081A
 QC Batch: E12 #6

Associated Samples: PIE00321
 3

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
B-BHC	2	73

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result. All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result. An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

GC CALIBRATION CHECK CRITERIA

Method: 8081A
 QC Batch: E12 #24

Associated Samples: PIE00321
 3

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
B-BHC	2	74
D-BHC	1	125
Endrin Ketone	1	117

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result. All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result. An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 8082 (PCB's only)
 Matrix: Water
 Instrument: GC

Date: 5/12/99
 Sample #: LCS/LCSD*
 Batch #: IE11PE1W

Analyte								Acceptance Limits	
	R1	Sp	MS	MSD	PR1	PR2	RPD	RPD	PR1/PR2
	ppb	ppb	ppb	ppb	%	%	%	%	%
PCB 1016 (Arochlor)	0	4.0	3.28	3.33	82%	83%	2%	50	60-140
PCB 1260 (Arochlor)	0	4.0	2.95	3.10	74%	78%	5%	50	60-140

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



MS/MSD DATA REPORT

EPA Method: 8082 (PCB's only)
 Matrix: Soil
 Instrument: GC

Date: 5/12/99
 Sample #: IE00786
 Batch #: IE12PE1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
PCB 1016 (Arochlor)	0	160	145	91.6	91%	57%	45%	50	60-140
PCB 1260 (Arochlor)	0	160	130	99.1	81%	62%	27%	50	60-140

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD 8082

DATE: 5/12/99

Analyte

St

LCS

PR

ppb

ppb

%

Aroclor 1016
Aroclor 1260

160	140	88%
160	135	84%

Definition of Terms:

St. Standard Concentration

LCS. Laboratory Control Sample Result

PR. Percent Recovery of LCS; $(LCS/St) \times 100$

QA/QC CRITERIA: QA/QC is within acceptance limits.

Del Mar Analytical



GC CALIBRATION CHECK CRITERIA

Method: 8082
 QC Batch: E13 #39

Associated Samples: PIE00321

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
AR 1260	1	116

- ¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.
- ² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



MS/MSD DATA REPORT

EPA Method: 8260B
 Matrix: Water
 Instrument: GCMS

Date: 05/11/99
 Sample #: PIE00264
 Batch #: IE11011W

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Vinyl Chloride	59.7	25	74.7	70.6	60%	44%	6%	≤ 20	45-170%
1,1-Dichloroethene	0.0	25	27.5	27.6	110%	110%	0.4%	≤ 20	70-130%
1,1-Dichloroethane	0.0	25	24.3	24.3	97%	97%	0.0%	≤ 20	80-135%
Chloroform	0.0	25	25.0	25.1	100%	100%	0.4%	≤ 20	80-135%
1,2-Dichloroethane	0.0	25	21.5	21.6	86%	86%	0.5%	≤ 20	80-130%
Benzene	0.0	25	29.0	28.9	116%	116%	0.3%	≤ 20	75-135%
Trichloroethene	2.8	25	26.2	27.4	94%	98%	4.5%	≤ 20	75-130%
Toluene	0.0	25	25.4	26.4	102%	106%	3.9%	≤ 20	75-135%
Tetrachloroethene	0.0	25	23.4	24.5	94%	98%	4.6%	≤ 20	70-135%
Chlorobenzene	4.5	25	28.2	28.6	95%	96%	1.4%	≤ 20	75-125%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 8260B

BATCH: IE11011W
 DATE: 5/11/99

Analyte	St	R1	PR	QC Limits
	ppb	ppb	%	%
Vinyl Chloride	25	25.7	103%	25-200
1,1-Dichloroethene	25	29.4	118%	55-165
1,1-Dichloroethane	25	24.5	98%	65-155
Chloroform	25	25.5	102%	65-150
1,2-Dichloroethane	25	21.4	86%	65-155
Benzene	25	29.4	118%	60-155
Trichloroethene	25	24.6	98%	60-150
Toluene	25	27.2	109%	65-155
Tetrachloroethene	25	24.2	97%	60-155
Chlorobenzene	25	24.3	97%	65-145

Definition of Terms:

St. Concentration standard added to sample

R1. Standard Result

PR. Percent Recovery

Del Mar Analytical



CORRECTIVE ACTION REPORT

Department: GC/MS Method: 8260B
Date: 05/11/99 Matrix: Water
Associated Samples: PIE00194, PIE00263-266, PIE00321-323, PIE00348-349
PIE00368-369, PIE00393-400

Identification and Definition of Problem:

The Method Blank analyzed in QC batch IE11011W had low recovery for surrogate 4-Bromofluorobenzene. 73% recovery is below the current control limits.

Determination of the Cause of the Problem:

Current Del Mar Analytical control limits are 75-130% for this surrogate. No cause could be determined for this one low recovery.

Corrective Action:

No further corrective action was taken because all associated sample recoveries were within control limits. Subsequent Method Blank surrogate recoveries were acceptable.

June Schaper: June Schaper
Quality Assurance Manager

Date: 6/1/99



BS/BSD DATA REPORT

EPA Method: 8260B
 Bench: Soil
 Instrument: GCMS

Date: 05/12/99
 Sample #: PIE00350
 Batch #: IE12011S

Acceptance Limits

Analyte	<u>R1</u>	<u>Sp</u>	<u>BS</u>	<u>BSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>RPD</u>	<u>PR1/PR2</u>
	ppb	ppb	ppb	ppb	%	%	%	%	%
Vinyl Chloride	0.0	1250	505	796	40%	64%	44.7%	≤ 112	0-100%
1,1-Dichloroethene	0.0	1250	1200	1175	96%	94%	2.1%	≤ 20	70-125%
1,1-Dichloroethane	0.0	1250	1091	1107	87%	89%	1.5%	≤ 20	75-115%
Chloroform	0.0	1250	1080	1080	86%	86%	0.0%	≤ 26	75-120%
1,2-Dichloroethane	0.0	1250	985	1021	79%	82%	3.6%	≤ 20	70-115%
Benzene	0.0	1250	1211	1202	97%	96%	0.7%	≤ 20	80-120%
Trichloroethene	0.0	1250	1042	1110	83%	89%	6.3%	≤ 20	75-120%
Toluene	0.0	1250	1074	1109	86%	89%	3.2%	≤ 20	80-125%
Tetrachloroethene	0.0	1250	1014	1036	81%	83%	2.1%	≤ 20	75-120%
Chlorobenzene	265	1250	1286	1333	82%	85%	4%	≤ 20	75-115%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- BS..... Bench Spike Result
- BSD..... Bench Spike Duplicate Result
- PR1..... Percent Recovery of BS; $((BS-R1)/SP) \times 100$
- PR2..... Percent Recovery of BSD; $((BSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((BS-BSD)/(BS+BSD)/2) \times 100$
- Acceptance Limits..... Determined by Control Charts

QA/QC Criteria..... All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

EPA Method: 8270
 Matrix: Water
 Instrument: GCMS

Date: 05/11/99
 Sample #: LCS/LCSD*
 Batch #: IE10SE1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
Phenol	0.1	50.0	37.0	38.0	74%	76%	3%	15	40-110
2-Chlorophenol	0.0	50.0	38.0	40.0	76%	80%	5%	15	40-110
1,4-Dichlorobenzene	0.0	50.0	31.0	32.0	62%	64%	3%	15	35-110
N-Nitroso-di-n-propylamine	0.0	50.0	41.0	41.0	82%	82%	0%	20	45-120
1,2,4-Trichlorobenzene	0.0	50.0	34.0	34.0	68%	68%	0%	15	44-110
4-Chloro-3-methylphenol	0.0	50.0	43.0	44.0	86%	88%	2%	20	50-115
acenaphthene	0.0	50.0	42.0	43.0	84%	86%	2%	15	50-115
2,4-Dinitrotoluene	0.0	50.0	45.0	47.0	90%	94%	4%	15	55-120
4-Nitrophenol	0.0	50.0	50.0	51.0	100%	102%	2%	15	45-120
Pentachlorophenol	0.0	50.0	51.0	52.0	102%	104%	2%	20	50-125
Pyrene	0.1	50.0	43.0	44.0	86%	88%	2%	25	70-120

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.



MS/MSD DATA REPORT

EPA Method: 8270B
 Matrix: Soil
 Instrument: GCMS

Date: 05/11/99
 Sample #: LCS/LCSD*
 Batch #: IE10SE1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Phenol	0.0	50.0	41.0	44.0	82%	88%	7%	20	30-95
2-Chlorophenol	0.0	50.0	43.0	48.0	86%	96%	11%	25	30-100
1,4-Dichlorobenzene	0.0	50.0	39.0	44.0	78%	88%	12%	30	25-90
N-Nitroso-di-n-propylamine	0.0	50.0	43.0	46.0	86%	92%	7%	20	35-100
1,2,4-Trichlorobenzene	0.0	50.0	39.0	42.0	78%	84%	7%	25	30-95
4-Chloro-3-methylphenol	0.0	50.0	46.0	48.0	92%	96%	4%	25	40-110
Acenaphthene	0.0	50.0	46.0	50.0	92%	100%	8%	15	35-105
2,4-Dinitrotoluene	0.0	50.0	48.0	51.0	96%	102%	6%	20	35-110
4-Nitrophenol	0.0	50.0	52.0	56.0	104%	112%	7%	25	15-135
Pentachlorophenol	0.0	50.0	53.0	55.0	106%	110%	4%	30	30-115
Pyrene	0.0	50.0	46.0	49.0	92%	98%	6%	25	30-140

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.
- QA/QC Criteria..... See Corrective Action Report.



CORRECTIVE ACTION REPORT

Department: GC/MS Method: 8270
Date: 05/11/99 Matrix: Soil
Batch: IE10SE1S

Identification and Definition of Problem:

The Laboratory Control Sample Duplicate (LCSD) recovered high (122%) and outside of the 45-120% acceptance limits for the compound di-n-Octylphthalate.

Determination of the Cause of the Problem:

No cause could be determined for the high recovery. It is suspected that the LCSD may have been over-concentrated during the extraction process.

Corrective Action:

The Laboratory Control Sample recovered within acceptance limits (106%) for di-n-Octylphthalate, thus validating the batch. All reported samples were non-detect for the compound, therefor the data are not impacted.

June S. Baker: *Elizabeth C. Wueschner for* Date: 10/2/99
Quality Assurance Manager



MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/21/99
 Sample #: PIE00214

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Selenium	0	1.0	0.938	0.959	94%	96%	2.2%	95%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: $< \text{ or } = 20\%$
 MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/11/99
 Sample #: PIE00214

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Beryllium	0	1.0	0.984	1.01	98%	101%	2.6%	100%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2)) \times 100$
- Acceptance Limits RPD: < or = 20%
 MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/11/99
 Sample #: PIE00214

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Arsenic	0	1.0	0.992	1.02	99%	102%	2.8%	101%
Cadmium	0	1.0	0.891	0.911	89%	91%	2.2%	90%
Chromium	0	1.0	0.882	0.898	88%	90%	1.8%	89%
Copper	0	1.0	0.964	0.990	96%	99%	2.7%	98%
Lead	0	1.0	0.877	0.887	88%	89%	1.1%	88%
Nickel	0	1.0	0.854	0.873	85%	87%	2.2%	86%
Selenium	0	1.0	0.882	0.901	88%	90%	2.1%	89%
Silver	0	0.05	0.0507	0.0540	101%	108%	6.3%	105%
Thallium	0	1.0	0.809	0.822	81%	82%	1.6%	82%
Zinc	0	1.0	0.997	1.02	100%	102%	2.3%	101%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
 MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 95044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/21/99
 Sample #: PIE00214

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony	0	1.0	1.03	1.04	103%	104%	1.0%	104%
Beryllium	0	1.0	1.01	1.04	101%	104%	2.9%	103%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1) / SP) X 100
- PR2..... Percent Recovery of MSD; ((MSD-R1) / SP) X 100
- RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100
- Acceptance Limits RPD: < or = 20%
 MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 245.1
 Matrix: Water
 Instrument: N/A

Date: 05/10/99
 Sample #: PIE00240
 Batch #: IE10HG1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppm	ppm	ppm	ppm	%	%	%	RPD	PR1/PR2
Mercury	0	0.00500	0.00548	0.00539	110%	108%	1.7%	≤ 20	70-130%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC was within acceptance limit.



MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/11/99
 Sample #: PIE00281

Analyte								MEAN
	R1	SP	MS	MSD	PR1	PR2	RPD	PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony*	0	50.0	*	*	*	*	*	*
Arsenic	5.79	50.0	51.4	52.7	91%	94%	2.5%	93%
Cadmium	1.93	50.0	50.3	51.4	97%	99%	2.2%	98%
Chromium	67.6	50.0	114	125	93%	115%	9.2%	104%
Copper**	1790	50.0	1770	2350	**	**	28.2%	**
Lead*	80.8	50.0	125	145	88%	128%	14.8%	108%
Nickel*	50.1	50.0	92.9	130	86%	160%	33.3%	123%
Selenium	0	50.0	47.8	46.7	96%	93%	2.3%	95%
Silver	0	50.0	54.2	55.8	108%	112%	2.9%	110%
Thallium	0	50.0	41.3	41.5	83%	83%	0.5%	83%
Zinc**	536	50.0	576	907	80%	**	44.6%	**

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1) / SP) X 100
- PR2..... Percent Recovery of MSD; ((MSD-R1) / SP) X 100
- RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: **Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See LCS for batch validation.

*The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

DATE: 5/11/99

Analyte	St	R1	PR
	ppm	ppm	%
Antimony	50.0	46.0	92%
Copper	50.0	46.4	93%
Lead	50.0	44.4	89%
Nickel	50.0	44.4	89%
Zinc	50.0	44.4	89%

Definition of Terms:

- St. Standard Concentration
- R1. Standard Result
- PR. Percent Recovery of R1; (R1/St) X 100
- Acceptance Limits LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/21/99
 Sample #: PIE00281

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN
	ppm	ppm	ppm	ppm	%	%	%	PR
Selenium	0.757	50.0	44.1	50.6	87%	100%	13.7%	93%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
 MS/MSD: 75-125%

QA/QC Criteria: All QA/QC was within acceptance limits.

MS/MSD DATA REPORT

METHOD: 6010B
INSTRUMENT: ICP
MATRIX: Soil

Date: 5/22/99
Sample #: PIE00957

Analyte								MEAN
	R1	SP	MS	MSD	PR1	PR2	RPD	PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony**	189	50.0	403	348	428%	318%	14.6%	373%
Beryllium*	0	50.0	30.0	27.0	60%	54%	10.5%	57%
Zinc**	920	50.0	733	940	0%	40%	24.7%	20%

Definition or Terms:

- R1. Result of Sample Analysis
- Sp. Spike Concentration Added to Sample
- MS. Matrix Spike Result
- MSD. Matrix Spike Duplicate Result
- PR1. Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2. Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD. Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: $< \text{ or } = 20\%$
 MS/MSD: 75-125%

QA/QC Criteria: **Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See LCS for batch validation.

*The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

DATE: 5/22/99

Analyte	St	R1	PR
	ppm	ppm	%
Antimony	50.0	47.3	95%
Beryllium	50.0	49.5	99%
Zinc	50.0	47.8	96%

Definition of Terms:

- St..... Standard Concentration
- R1..... Standard Result
- PR..... Percent Recovery of R1; $(R1/St) \times 100$
- Acceptance Limits LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/19/99
 Sample #: PIE00281

Analyte								MEAN
	R1	SP	MS	MSD	PR1	PR2	RPD	PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony	9.45	50.0	30.1	36.0	41%	53%	17.9%	47%
Arsenic	2.49	50.0	55.4	58.4	106%	112%	5.3%	109%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

DATE: 5/19/99

Analyte	St	R1	PR
	ppm	ppm	%
Antimony	50.0	48.7	97%

Definition of Terms:

- St. Standard Concentration
- R1. Standard Result
- PR. Percent Recovery of R1; $(R1/St) \times 100$
- Acceptance Limits LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

EPA Method: 7471A
 Matrix: Soil
 Instrument: N/A

Date: 05/12/99
 Sample #: PIE00579
 Batch #: IE12HG1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppm	ppm	ppm	ppm	%	%	%	RPD	PR1/PR2
Mercury	0	0.333	0.313	0.303	94%	91%	3%	≤ 20	85-115%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

- QA/QC Criteria..... All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

EPA Method: 7471A
 Matrix: Soil
 Instrument: N/A

Date: 05/14/99
 Sample #: PIE00259
 Batch #: IE14HG1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppm	ppm	ppm	ppm	%	%	%	RPD	PR1/PR2
Mercury	0.154	0.333	0.417	0.419	79%	80%	0%	≤ 20	85-115%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

- QA/QC Criteria..... Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LCS DATA REPORT

METHOD: 7471A
 MATRIX : Soil

DATE: 5/14/99

Analyte	Sp	LCS	PR
	ppm	ppm	%
Mercury	0.00200	0.00198	99%

Definition of Terms:

- Sp..... Standard Concentration
- LCS..... Laboratory Control Sample Result
- PR..... Percent Recovery of LCS; (LCS/Sp) X 100

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical



May 27, 1999

Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, Arizona 85044
Attn: Robyn Rice

Report of Laboratory Results: ARF number: 30242

Dear Ms. Rice:

Six water samples for Project Number 'PIE00321.QST' were received May 11, 1999, in good condition. Written results are being provided on this May 27, 1999, for the requested analyses. All holding times were met. No unusual problems or complications were encountered with this sample set.

Sample Table

Sample Description	Del Mar ID	APPL Inc. ID	Sample Date
Water	PIE00321	78769w	05/06/99
Water	PIE00323	78770w	05/06/99
Soil	PIE00324	78771s	05/06/99
Soil	PIE00325	78772s	05/06/99
Soil	PIE00326	78773s	05/06/99
Soil	PIE00327	78774s	05/06/99

If you have any questions or require further information, please contact us at your convenience. Thank you for choosing APPL, Inc.

Sincerely,

Mike Ray, Laboratory Director
APPL, Inc.

MR/mr
Enclosure
cc: File

EPA 8141

Del Mar Analytical
30 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00321.QST

ARF: 30242

Sample ID: PIE00321

APPL ID AP78769

Sample Collection Date: 5/6/99

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	5.0	ug/L	5/13/99	5/18/99
EPA 8141	Bolstar	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Chlorpyrifos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Coumaphos	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Def	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Demeton-s	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Diazinon	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Dichlorvos	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Dimethoate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Disulfoton	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	EPN	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ethion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ethoprop	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Fensulfothion	Not detected	2.5	ug/L	5/13/99	5/18/99
EPA 8141	Fenthion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Malathion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Merphos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Mevinphos	Not detected	3.5	ug/L	5/13/99	5/18/99
EPA 8141	Naled	Not detected	2.5	ug/L	5/13/99	5/18/99
EPA 8141	Parathion, ethyl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Parathion, methyl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Phorate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Prowl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ronnel	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Stirophos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Sulfotep	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Tepp	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Tokuthion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Trichloronate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Trifluralin	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Surrogate: Tributylphosphate	80.0	60-150	%	5/13/99	5/18/99
EPA 8141	Surrogate: Triphenylphosphate	72.8 #	76-140	%	5/13/99	5/18/99

= Recovery is outside QC limits.

Run #: 517041
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

Printed: 5/18/99 12:57:44 PM

EPA 8141

Del Mar Analytical
3630 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00321.QST

Sample ID: PIE00323

Sample Collection Date: 5/6/99

ARF: 30242

APPL ID AP78770

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	5.0	ug/L	5/13/99	5/18/99
EPA 8141	Bolstar	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Chlorpyrifos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Coumaphos	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Def	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Demeton-s	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Diazinon	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Dichlorvos	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Dimethoate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Disulfoton	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	EPN	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ethion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ethoprop	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Fensulfothion	Not detected	2.5	ug/L	5/13/99	5/18/99
EPA 8141	Fenthion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Malathion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Merphos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Mevinphos	Not detected	3.5	ug/L	5/13/99	5/18/99
EPA 8141	Naled	Not detected	2.5	ug/L	5/13/99	5/18/99
EPA 8141	Parathion, ethyl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Parathion, methyl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Phorate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Prowl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ronnel	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Stirophos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Sulfotep	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Tepp	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Tokuthion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Trichloronate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Trifluralin	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Surrogate: Tributylphosphate	80.4	60-150	%	5/13/99	5/18/99
EPA 8141	Surrogate: Triphenylphosphate	74.3 #	76-140	%	5/13/99	5/18/99

= Recovery is outside QC limits.

Run #: 517042
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

Printed: 5/18/99 12:57:44 PM

EPA 8141 OP Pesticides

Del Mar Analytical
 3030 South 51st. St., Ste B-120
 Phoenix, AZ 85044

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00321.QST

Sample ID: PIE00324

Sample Collection Date: 5/6/99

ARF: 30242

APPL ID AP78771

QCG: \$8141S-990514AS-16647

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/14/99	5/20/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/14/99	5/20/99
EPA 8141	Def	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/14/99	5/20/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/14/99	5/20/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/14/99	5/20/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/14/99	5/20/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/14/99	5/20/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/14/99	5/20/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Surrogate: Tributylphosphate	102	51-154	%	5/14/99	5/20/99
EPA 8141	Surrogate: Triphenylphosphate	96.0	63-151	%	5/14/99	5/20/99

Run #: 517104
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

EPA 8141 OP Pesticides

Mar Analytical
 3030 South 51st. St., Ste B-120
 Phoenix, AZ 85044

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Attn: Robyn Rice
 Project: PIE00321.QST

ARF: 30242

Sample ID: PIE00325

APPL ID AP78772

Sample Collection Date: 5/6/99

QCG: \$8141S-990514AS-16647

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/14/99	5/18/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Def	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/14/99	5/18/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/14/99	5/18/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/14/99	5/18/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Surrogate: Tributylphosphate	85.6	51-154	%	5/14/99	5/18/99
EPA 8141	Surrogate: Triphenylphosphate	94.9	63-151	%	5/14/99	5/18/99

Run #: 517059
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

EPA 8141 OP Pesticides

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00321.QST

Sample ID: PIE00326

Sample Collection Date: 5/6/99

ARF: 30242

APPL ID AP78773

QCG: \$8141S-990514AS-16647

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/14/99	5/18/99
EPA 8141	Boistar	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Def	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/14/99	5/18/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/14/99	5/18/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/14/99	5/18/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Surrogate: Tributylphosphate	74.3	51-154	%	5/14/99	5/18/99
EPA 8141	Surrogate: Triphenylphosphate	81.4	63-151	%	5/14/99	5/18/99

Run #: 517060
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

EPA 8141 OP Pesticides

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00321.QST

Sample ID: PIE00327

Sample Collection Date: 5/6/99

ARF: 30242

APPL ID AP78774

QCG: \$8141S-990514AS-16647

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/14/99	5/18/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Def	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/14/99	5/18/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/14/99	5/18/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/14/99	5/18/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/14/99	5/18/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/14/99	5/18/99
EPA 8141	Surrogate: Tributylphosphate	87.0	51-154	%	5/14/99	5/18/99
EPA 8141	Surrogate: Triphenylphosphate	90.3	63-151	%	5/14/99	5/18/99

Run #: 517061
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FMI

EPA 8151 Herbicides

Pal Mar Analytical
30 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00321.QST

Sample ID: PIE00321

Sample Collection Date: 5/6/99

ARF: 30242

APPL ID AP78769

QCG: \$8151-990512WA-16620

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	0.50	ug/L	5/12/99	5/18/99
EPA 8151	Dalapon	Not detected	1.0	ug/L	5/12/99	5/18/99
EPA 8151	2,4-DB	Not detected	1.0	ug/L	5/12/99	5/18/99
EPA 8151	Dicamba	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/12/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/12/99	5/18/99
EPA 8151	MCPA	Not detected	100	ug/L	5/12/99	5/18/99
EPA 8151	MCPP	Not detected	100	ug/L	5/12/99	5/18/99
EPA 8151	2,4,5-T	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	Surrogate Recovery	72.8	61-120	%	5/12/99	5/18/99

Run #: 51
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 1:21:37 PM

EPA 8151 Herbicides

Del Mar Analytical
30 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00321.QST

Sample ID: PIE00323

Sample Collection Date: 5/6/99

ARF: 30242

APPL ID AP78770

QCG: S8151-990512WA-16620

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	0.50	ug/L	5/12/99	5/18/99
EPA 8151	Dalapon	Not detected	1.0	ug/L	5/12/99	5/18/99
EPA 8151	-2,4-DB	Not detected	1.0	ug/L	5/12/99	5/18/99
EPA 8151	Dicamba	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/12/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/12/99	5/18/99
EPA 8151	MCPA	Not detected	100	ug/L	5/12/99	5/18/99
EPA 8151	MCPP	Not detected	100	ug/L	5/12/99	5/18/99
EPA 8151	2,4,5-T	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	Surrogate Recovery	45.5 #	61-120	%	5/12/99	5/18/99

= Recovery is outside QC limits.

Run #: 52
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 1:21:37 PM

EPA 8151 Herbicides

Del Mar Analytical
330 South 51st. St., Ste B-120
Phoenix, AZ 85044

Attn: Robyn Rice
Project: PIE00321.QST

Sample ID: **PIE00323**
Sample Collection Date: 5/6/99

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

ARF: 30242
APPL ID AP78770
QCG: \$8151-990512WA-16620

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	0.50	ug/L	5/20/99	5/26/99
EPA 8151	Dalapon	Not detected	1.0	ug/L	5/20/99	5/26/99
EPA 8151	2,4-DB	Not detected	1.0	ug/L	5/20/99	5/26/99
EPA 8151	Dicamba	Not detected	0.10	ug/L	5/20/99	5/26/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/20/99	5/26/99
EPA 8151	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/20/99	5/26/99
EPA 8151	MCPA	Not detected	100	ug/L	5/20/99	5/26/99
EPA 8151	MCPP	Not detected	100	ug/L	5/20/99	5/26/99
EPA 8151	2,4,5-T	Not detected	0.10	ug/L	5/20/99	5/26/99
EPA 8151	2,4,5-TP	Not detected	0.10	ug/L	5/20/99	5/26/99
EPA 8151	Surrogate Recovery	103	61-120	%	5/20/99	5/26/99

Run #: 32
Instrument: ECD01
Sequence: 990525
Dilution Factor: 1
Initials: KW

Printed: 5/27/99 12:11:52 PM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
30 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice
Project: PIE00321.QST
Sample ID: PIE00324
Sample Collection Date: 5/6/99

ARF: 30242
APPL ID AP78771
QCG: \$8151S-990513SA-16619

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/13/99	5/18/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/18/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Surrogate recovery	107	93-141	%	5/13/99	5/18/99

Run #: 37
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 12:28:46 PM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
30 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00321.QST

Sample ID: PIE00325

Sample Collection Date: 5/6/99

ARF: 30242

APPL ID AP78772

QCG: S8151S-990513SA-16619

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/13/99	5/18/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/18/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Surrogate recovery	109	93-141	%	5/13/99	5/18/99

Run #: 38
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 12:28:46 PM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
330 South 51st. St., Ste B-120
Phoenix, AZ 85044

Attn: Robyn Rice
Project: PIE00321.QST
Sample ID: PIE00326
Sample Collection Date: 5/6/99

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

ARF: 30242
APPL ID AP78773
QCG: \$8151S-990513SA-16619

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/13/99	5/18/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/18/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Surrogate recovery	111	93-141	%	5/13/99	5/18/99

Run #: 39
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 12:28:46 PM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
330 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00321.QST

Sample ID: PIE00327

Sample Collection Date: 5/6/99

ARF: 30242

APPL ID AP78774

QCG: \$8151S-990513SA-16619

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/13/99	5/18/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/18/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/18/99
EPA 8151	Surrogate recovery	115	93-141	%	5/13/99	5/18/99

Run #: 40
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 12:28:46 PM

Method Blank

EPA 8141

Blank Name/QCG: 990513W - 16601
 Batch ID: \$8141W-990513A

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	Azinphosmethyl	Not detected	5.0	ug/L	5/13/99	5/18/99
BLANK	Bolstar	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Chlorpyrifos	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Coumaphos	Not detected	1.0	ug/L	5/13/99	5/18/99
BLANK	Def	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	- Demeton-s	Not detected	1.0	ug/L	5/13/99	5/18/99
BLANK	Diazinon	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Dichlorvos	Not detected	1.0	ug/L	5/13/99	5/18/99
BLANK	Dimethoate	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Disulfoton	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	EPN	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Ethion	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Ethoprop	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Fensulfothion	Not detected	2.5	ug/L	5/13/99	5/18/99
BLANK	Fenthion	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Malathion	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Merphos	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Mevinphos	Not detected	3.5	ug/L	5/13/99	5/18/99
BLANK	Naled	Not detected	2.5	ug/L	5/13/99	5/18/99
BLANK	Parathion, ethyl	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Parathion, methyl	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Phorate	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Prowl	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Ronnel	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Stirophos	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Sulfotep	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Tepp	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Tokuthion	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Trichloronate	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Trifluralin	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Surrogate: Tributylphosphate	82.8	60-150	%	5/13/99	5/18/99
BLANK	Surrogate: Triphenylphosphate	76.2	76-140	%	5/13/99	5/18/99

Run #: 517027
Instrument: NPD03
Sequence: 990517
Initials: FML

Matrix / Control Spike Recoveries

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: 990513AW LCS/LCSD
Date/Initials: 5/18/99 FML
Extraction Date: 5/13/99
Matrix Type: WATER
Units: ug/L

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery	%RPD (See below)
Phorate	2.50	0.00	1.65	66.2	1.76	70.6	6.4
Diazinon	2.50	0.00	2.51	101	2.62	105	4.2
Disulfoton	2.50	0.00	1.79	71.7	1.89	75.8	5.5
Methyl parathion	2.50	0.00	1.97	78.6	2.02	80.9	2.9
Stirophos	2.50	0.00	2.12	84.9	2.21	88.3	3.9
Ethion	2.50	0.00	1.74	69.6	1.81	72.4	4.0

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery
Tributyl phosphate	5.00	*****	4.12	82.4	4.27	85.5
Triphenyl phosphatate	5.00	*****	3.88	77.7	4.17	83.4

	Primary Column		Secondary Column	
	Spike	Spk Dup	Spike	Spk Dup
Analysis Date:	5/18/99	5/18/99		
Analysis Time:	3:34 AM	4:11 AM		
Instrument:	NPD03B	NPD03B		
Column:	DB-5	DB-5		
Sample/Vial #:	28	29		
Extraction Ratio:	10/1000	10/1000		
Dilution Factor:	1	1		

Comments:

	Soil	Water	Soil RPD	Water RPD
Phorate	26-98	22-96	21	24
Diazinon	61-139	57-130	24	21
Disulfoton	14-131	47-117	26	22
Meth Parathion	63-153	55-164	19	24
Stirophos	58-140	68-128	21	25
Ethion	66-131	65-134	36	20
Tributyl phosphate	51-154	60-150	NA	NA
Triphenyl phosphate	63-151	76-140	NA	NA

MATRIX SPIKE

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: 78753 MS
Date/Initials: 5/19/99 FML
Extraction Date: 5/13/99
Matrix Type: Water
Units: ug/L

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Phorate	2.50	*****	1.81	72.3
Diazinon	2.50	*****	2.53	101
Disulfoton	2.50	*****	2.09	83.4
Methyl parathion	2.50	*****	2.21	88.2
Stirophos	2.50	*****	2.39	95.6
Ethion	2.50	*****	1.82	72.7

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Tributyl phosphate	5.00	*****	4.24	84.8
Triphenyl phosphate	5.00	*****	4.20	84.0

	Prim Col	Sec Col
	Spike	Spike
Analysis Date:	5/18/99	
Analysis Time:	7:08 PM	
Instrument:	NPD03B	
Column:	DB-5	
Sample/Vial #:	53	
Extraction Ratio:	10/1000	
Dilution Factor:	1	

Comments:

	Soil	Water
Phorate	26-98	22-96
Diazinon	61-139	57-130
Disulfoton	14-131	47-117
Meth Parathion	63-153	55-164
Stirophos	58-140	68-128
Ethion	66-131	65-134
Tributyl phosphate	51-154	60-150
Triphenyl phosphate	63-151	76-140

Method Blank

EPA 8141 OP Pesticides

Blank Name/QCG: 990514S - 16647
 Batch ID: \$8141S-990514AS

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	Azinphosmethyl	Not detected	500	ug/kg	5/14/99	5/18/99
BLANK	Bolstar	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Chlorpyrifos	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Coumaphos	Not detected	100	ug/kg	5/14/99	5/18/99
BLANK	Def	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Demeton-s	Not detected	100	ug/kg	5/14/99	5/18/99
BLANK	Diazinon	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Dichlorvos	Not detected	100	ug/kg	5/14/99	5/18/99
BLANK	Dimethoate	Not detected	100	ug/kg	5/14/99	5/18/99
BLANK	Disulfoton	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	EPN	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Ethion	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Ethoprop	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Fensulfothion	Not detected	250	ug/kg	5/14/99	5/18/99
BLANK	Fenthion	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Malathion	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Merphos	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Mevinphos	Not detected	350	ug/kg	5/14/99	5/18/99
BLANK	Naled	Not detected	250	ug/kg	5/14/99	5/18/99
BLANK	Parathion, ethyl	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Parathion, methyl	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Phorate	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Prowl	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Ronnel	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Stirophos	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Sulfotep	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	TEPP	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Tokuthion	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Trichloronate	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Trifluralin	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Surrogate: Tributylphosphate	82.1	51-154	%	5/14/99	5/18/99
BLANK	Surrogate: Triphenylphosphate	81.2	63-151	%	5/14/99	5/18/99

Run #: 517046
Instrument: NPD03
Sequence: 990517
Initials: FML

Laboratory Control Spike - LCS

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: 990514AS LCS
Date/Initials: 5/20/99 FML
Extraction Date: 5/14/99
Matrix Type: SOIL
Units: ug/kg

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Phorate	83.3	*****	58.6	70.3
Diazinon * %	83.3	*****	702	842
Disulfoton	83.3	*****	78.6	94.3
Methyl parathion	83.3	*****	75.0	90.0
Stirophos	83.3	*****	80.5	96.6
Ethion	83.3	*****	59.6	71.6

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Tributyl phosphate	167	*****	143	85.8
Triphenyl phosphat	167	*****	140	84.1

	Prim Col Spike	Sec Col Spike
Analysis Date:	5/18/99	
Analysis Time:	3:23 PM	
Instrument:	NPD03B	
Column:	DB-5	
Sample/Vial #:	47	
Extraction Ratio:	10/30	
Dilution Factor:	1	

Comments:	* Diazinon reported from 517097, DF 1:10.
	% Diazinon out of QC limits, possible sample contamination .

	Soil	Water
Phorate	26-98	22-96
Diazinon	61-139	57-130
Disulfoton	14-131	47-117
Meth Parathion	63-153	55-164
Stirophos	58-140	68-128
Ethion	66-131	65-134
Tributyl phosphate	51-154	60-150
Triphenyl phosphate	63-151	76-140

Matrix / Control Spike Recoveries

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: **778586S MS/MSD**
Date/Initials: 5/20/99 FML
Extraction Date: 5/14/99
Matrix Type: SOIL
Units: ug/kg

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery	%RPD (See below)
Phorate	83.3	0.000	57.6	69.1	57.9	69.4	0.5
Diazinon # &	83.3	0.000	13800	16560	12000.0	14400	14
Disulfoton @	83.3	0.000	186	223	173	207	7.4
Methyl parathion	83.3	0.000	99.1	119	100	120	1.2
Stirophos	83.3	0.000	82.3	98.8	83.6	100	1.5
Ethion	83.3	0.000	59.7	71.7	60.7	72.8	1.5

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery
Tributyl phosphate	167	*****	144	86.2	145	87.0
Triphenyl phosphatate	167	*****	137	82.2	137	82.1

	Primary Column	
	Spike	Spk Dup
Analysis Date:	5/18/99	5/18/99
Analysis Time:	4:01 PM	6:30 PM
Instrument:	NPD03B	NPD03B
Column:	DB-5	DB-5
Sample/Vial #:	48	48 52 32
Extraction Ratio:	10/30	10/30
Dilution Factor:	1	1

Secondary Column	
Spike	Spk Dup

Comments:	# Diazinon reported from 517098,517099, DF 1:100.
	& Results mainly coming from the matrix.
	‡ Disulfoton affected by diazinon(baseline) is out of QC.

	Soil	Water	Soil RPD	Water RPD
Phorate	26-98	22-96	21	24
Diazinon	61-139	57-130	24	21
Disulfoton	14-131	47-117	26	22
Meth Parathion	63-153	55-164	19	24
Stirophos	58-140	68-128	21	25
Ethion	66-131	65-134	36	20
Tributyl phosphate	51-154	60-150	NA	NA
Triphenyl phosphate	63-151	76-140	NA	NA

Method Blank
EPA 8151 HERBICIDE SOIL

Blank Name/QCG: 990513S - 16619
Batch ID: S8151S-990513SA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	2,4-D	Not detected	200	ug/kg	5/13/99	5/17/99
BLANK	Dalapon	Not detected	2000	ug/kg	5/13/99	5/17/99
BLANK	2,4-DB	Not detected	400	ug/kg	5/13/99	5/17/99
BLANK	Dicamba	Not detected	40	ug/kg	5/13/99	5/17/99
BLANK	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/13/99	5/17/99
BLANK	Dinoseb (DNBP)	Not detected	100	ug/kg	5/13/99	5/17/99
BLANK	MCPA	Not detected	40000	ug/kg	5/13/99	5/17/99
BLANK	MCPP	Not detected	40000	ug/kg	5/13/99	5/17/99
BLANK	2,4,5-T	Not detected	40	ug/kg	5/13/99	5/17/99
BLANK	2,4,5-TP	Not detected	40	ug/kg	5/13/99	5/17/99
BLANK	Surrogate recovery	106	93-141	%	5/13/99	5/17/99

Run #: 11
Instrument: ECD01
Sequence: 990517
Initials: KW

Laboratory Control Spike Recovery
EPA 8151 HERBICIDE SOIL

APPL ID: 990513S-78683 LCS - 16619

Batch ID: S8151S-990513SA

APPL Inc.

4203 West Swift Avenue

Fresno, CA 93722

Compound Name	Spike Level ug/kg	SPK Result ug/kg	SPK % Recovery	Recovery Limits
2,4,5-T	200	195	97.5	77-148
2,4,5-TP	200	189	94.5	87-149
2,4-D	200	222	111	90-181
Dicamba	200	191	95.5	63-149
Dichlorprop (2,4-DP)	200	201	101	91-183
Dinoseb (DNBP)	200	195	97.5	71-167
Surrogate recovery	600	641	107	93-141

Comments: _____

Primary	SPK
Extraction Date :	5/13/99
Analysis Date :	5/17/99
Instrument :	ECD01
Run :	12
Analyst :	KW

Printed: 5/19/99 12:29:52 PM

Matrix Spike Recoveries

EPA 8151 HERBICIDE SOIL

APPL ID 990513S-78683 MS/MSD - 16619
 Batch ID: S8151S-990513SA

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Compound Name	Spike Level ug/kg	Matrix Result ug/kg	SPK Result ug/kg	DUP Result ug/kg	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	200	ND	213	209	107	105	77-148	1.9	27
2,4,5-TP	200	ND	202	200	101	100	87-149	1.00	27
2,4-D	200	ND	251	247	126	124	90-181	1.6	27
Dicamba	200	ND	226	225	113	113	63-149	0.44	31
Dichlorprop (2,4-DP)	200	ND	213	210	107	105	91-183	1.4	37
Dinoseb (DNBP)	200	ND	267	253	134	127	71-167	5.4	NE
Surrogate recovery	600	NA	683	676	114	113	93-141		

NE = Not established.

Comments:

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Extraction Date :	5/13/99	5/13/99
Analysis Date :	5/17/99	5/17/99
Instrument :	ECD01	ECD01
Run :	13	14
Analyst :	KW	

Method Blank
EPA 8151 Herbicides

Blank Name/QCG: 990512W - 16620
Batch ID: \$8151-990512WA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	2,4-D	Not detected	0.50	ug/L	5/12/99	5/18/99
BLANK	Dalapon	Not detected	1.0	ug/L	5/12/99	5/18/99
BLANK	2,4-DB	Not detected	1.0	ug/L	5/12/99	5/18/99
BLANK	Dicamba	Not detected	0.10	ug/L	5/12/99	5/18/99
BLANK	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/12/99	5/18/99
BLANK	Cinoseb (DNBP)	Not detected	0.25	ug/L	5/12/99	5/18/99
BLANK	MCPA	Not detected	100	ug/L	5/12/99	5/18/99
BLANK	MCPP	Not detected	100	ug/L	5/12/99	5/18/99
BLANK	2,4,5-T	Not detected	0.10	ug/L	5/12/99	5/18/99
BLANK	2,4,5-TP	Not detected	0.10	ug/L	5/12/99	5/18/99
BLANK	Surrogate recovery	89.5	51-120	%	5/12/99	5/18/99

Run #: 44
Instrument: ECD01
Sequence: 990517
Initials: KW

Laboratory Control Spike Recoveries

EPA 8151 Herbicides

APPL ID 990512W-78767 LCS/LCSD - 16620
 Batch ID: S8151-990512WA

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Compound Name	Spike Level ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	1.00	0.887	0.914	88.7	91.4	53-134	3.0	32
2,4,5-TP	1.00	0.840	0.848	84.0	84.8	60-118	0.95	24
2,4-D	1.00	1.06	1.10	106	110	44-155	3.7	15
Dicamba-	1.00	0.933	0.962	93.3	96.2	48-102	3.1	24
Diclorprop (2,4-DP)	1.00	0.895	0.911	89.5	91.1	37-146	1.8	18
Dinoseb (DNBP)	1.00	0.838	0.843	83.8	84.3	73-173	0.59	31
Surrogate: 2,4-DCAA	3.00	2.79	2.82	93.0	94.0	61-120		

Comments: _____

Primary	SPK	DUP
Extraction Date :	5/12/99	5/12/99
Analysis Date :	5/18/99	5/18/99
Instrument :	ECD01	ECD01
Run :	45	46
Analyst :	KW	

Matrix Spike Recovery
EPA 8151 Herbicides

APPL ID 990512W-78767 MS - 16620
Batch ID: S8151-990512WA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Compound Name	Spike Level ug/L	Matrix Result ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2,4,5-T	1.17	ND	0.889	76.0	53-134
2,4,5-TP	1.17	ND	0.832	71.1	50-118
2,4-D	1.17	ND	1.47	126	44-155
Dicamba	1.17	ND	1.27	109 #	48-102
Dichlorprop (2,4-DP)	1.17	ND	0.907	77.5	37-146
Dinoseb (DNBP)	1.17	ND	0.786	67.2 #	73-173
Surrogate: 2,4-DCAA	3.53	NA	2.82	79.9	51-120

= Recovery is outside QC limits.

Comments: _____

Primary	SPK
Extraction Date :	5/12/99
Analysis Date :	5/18/99
Instrument :	ECD01
Run :	47
Analyst :	KW

Matrix Spike Recovery
EPA 8151 Herbicides

APPL ID 990512W-78767 MS - 16620
Batch ID: S8151-990512WA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Compound Name	Spike Level ug/L	Matrix Result ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2,4,5-T	1.17	ND	0.792	67.7	53-134
2,4,5-TP	1.17	ND	0.766	65.5	60-118
2,4-D	1.17	ND	1.38	118	44-155
Dicamba	1.17	ND	1.20	103 #	48-102
Dichlorprop (2,4-DP)	1.17	ND	0.861	73.6	37-146
Dinoseb (DNBP)	1.17	ND	0.732	62.6 #	73-173
Surrogate: 2,4-DCAA	3.53	NA	2.65	75.1	61-120

= Recovery is outside QC limits.

Comments:

Primary	SPK
Extraction Date :	5/12/99
Analysis Date :	5/19/99
Instrument :	ECD01
Run :	89
Analyst :	KW

Method Blank
EPA 8151

Blank Name/QCG: 990520W - 16774
Batch ID: S815G-990520A

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	Bentazon	Not detected	0.50	ug/L	5/20/99	5/25/99
BLANK	2,4-D	Not detected	0.50	ug/L	5/20/99	5/25/99
BLANK	Dacthal	Not detected	0.10	ug/L	5/20/99	5/25/99
BLANK	Dalapon	Not detected	1.0	ug/L	5/20/99	5/25/99
BLANK	2,4-DB	Not detected	1.0	ug/L	5/20/99	5/25/99
BLANK	Dicamba	Not detected	0.10	ug/L	5/20/99	5/25/99
BLANK	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/20/99	5/25/99
BLANK	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/20/99	5/25/99
BLANK	MCPA	Not detected	100	ug/L	5/20/99	5/25/99
BLANK	MCPP	Not detected	100	ug/L	5/20/99	5/25/99
BLANK	Picloram	Not detected	0.10	ug/L	5/20/99	5/25/99
BLANK	2,4,5-T	Not detected	0.10	ug/L	5/20/99	5/25/99
BLANK	2,4,5-TP	Not detected	0.10	ug/L	5/20/99	5/25/99
BLANK	Surrogate Recovery	90.8	61-120	%	5/20/99	5/25/99

Run #: 12
Instrument: ECD01
Sequence: 990525
Initials: KW

Printed: 5/27/99 12:12:09 PM

Laboratory Control Spike Recoveries

EPA 8151

APPL ID 990520W-79108 LCS/LCSD - 16774

Batch ID: S815G-990520A

APPL Inc.

4203 West Swift Avenue

Fresno, CA 93722

Compound Name	Spike Level ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	1.00	0.818	0.792	81.8	79.2	53-134	3.2	32
2,4,5-TP	1.00	0.745	0.731	74.5	73.1	60-118	1.9	24
2,4-D	1.00	1.04	1.03	104	103	44-155	0.97	15
Dicamba	1.00	0.893	0.868	89.3	86.8	48-102	2.8	24
Dichlorprop (2,4-DP)	1.00	0.682	0.669	68.2	66.9	37-146	1.9	18
Dinoseb (DNBP)	1.00	0.776	0.744	77.6	74.4	73-173	4.2	NE
Surrogate: 2,4-DCAA	3.00	2.86	2.75	95.3	91.7	61-120		

NE = Not established.

Comments:

Primary	SPK	DUP
Extraction Date :	5/20/99	5/20/99
Analysis Date :	5/25/99	5/25/99
Instrument :	ECD01	ECD01
Run :	13	14
Analyst :	KW	

CHAIN OF CUSTODY FORM

Quote # _____ Page 1 of 2

Client Name/Address: [Handwritten: 351 20000 11th Street, Riverside, CA]			Project/PO Number: [Handwritten: 351 20000 11th Street, Riverside, CA]			Analysis Required													
Project Manager: [Handwritten: 351 20000 11th Street, Riverside, CA]			Phone Number: [Handwritten: 951-271-1111]			[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]		
Sampler: [Handwritten: 351 20000 11th Street, Riverside, CA]			Fax Number: [Handwritten: 951-271-1111]																
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	Special Instructions	
[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]	[Handwritten: 351 20000 11th Street, Riverside, CA]
Relinquished By: [Handwritten: 351 20000 11th Street, Riverside, CA]			Date /Time: [Handwritten: 351 20000 11th Street, Riverside, CA]			Received by: [Handwritten: 351 20000 11th Street, Riverside, CA]			Date /Time: [Handwritten: 351 20000 11th Street, Riverside, CA]			Turnaround Time (Check)			same day _____ 72 hours _____				
Relinquished By: [Handwritten: 351 20000 11th Street, Riverside, CA]			Date /Time: [Handwritten: 351 20000 11th Street, Riverside, CA]			Received by: [Handwritten: 351 20000 11th Street, Riverside, CA]			Date /Time: [Handwritten: 351 20000 11th Street, Riverside, CA]			24 hours _____ 5 days _____			48 hours _____ normal _____				
Relinquished By: [Handwritten: 351 20000 11th Street, Riverside, CA]			Date /Time: [Handwritten: 351 20000 11th Street, Riverside, CA]			Received In Lab by: [Handwritten: 351 20000 11th Street, Riverside, CA]			Date /Time: [Handwritten: 351 20000 11th Street, Riverside, CA]			Sample Integrity (Check)			intact _____ on ice _____				

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days

CHAIN OF CUSTODY FORM

Quote # _____ Page 1 of 1

Client Name/Address: <i>Q=1</i> <i>12001 ...</i>		Project/PO Number: <i>...</i>		Analysis Required										Special Instructions									
Project Manager: <i>...</i>		Phone Number: <i>...</i>		Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	...	...	...	...		...	...	...	...	...	...	...
Sampler: <i>...</i>		Fax Number: <i>...</i>																					
...	
...	
...	
...	
...	
...	
Relinquished By: <i>...</i>		Date /Time: <i>...</i>		Received by: <i>...</i>		Date /Time: <i>...</i>		Turnaround Time: (Check)		same day _____		72 hours _____		24 hours _____		5 days _____		48 hours _____		normal _____		Sample Integrity: (Check)	
Relinquished By: <i>...</i>		Date /Time: <i>...</i>		Received by: <i>...</i>		Date /Time: <i>...</i>		intact _____		on ice _____													
Relinquished By: <i>...</i>		Date /Time: <i>...</i>		Received in Lab by: <i>...</i>		Date /Time: <i>...</i>																	

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 2830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 795-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Report Number: PIE00348

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 8-24, 1999
 Analyzed: May 11-25, 1999
 Reported: May 26, 1999

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PIE00348	QST-B17(GW/80) (5-7-99)	Water	8260B, 8270, 200.7, 245.1, 8081A, 8082, 8141A & 8151
PIE00349	QST-B27(GW/80) (5-7-99)	Water	8260B, 8270, 200.7, 245.1, 8081A, 8082, 8141A & 8151
PIE00350	QST-B17(S/15) (5-7-99)	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00351	QST-B17(S/65) (5-7-99)	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00352	QST-B16(S/26) (5-7-99)	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00353	QST-B16(S/30) (5-7-99)	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00354	QST-B16(S/75) (5-7-99)	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

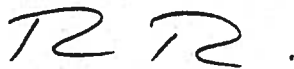
PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: One or more method QA/QC parameters exceeded acceptance limits. See Corrective Action Report.

OBSERVATIONS: No significant observations were made.

SUBCONTRACTED: The 8141A & 8151 analysis was performed at APPL. Results are attached.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)


 Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C 11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 3830 South 51st St., Suite B 120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B17(GW/80)(5-7-99)
 Lab Number: PIE00348

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 26, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit	Sample Result
	$\mu\text{g/L}$ (ppb)		$\mu\text{g/L}$ (ppb)
Aldrin.....	0.10	N.D.
alpha-BHC.....	0.10	N.D.
beta-BHC.....	0.10	N.D.
delta-BHC.....	0.25	N.D.
gamma-BHC (Lindane).....	0.10	N.D.
Chlordane.....	2.0	N.D.
4,4'-DDD.....	0.10	N.D.
4,4'-DDE.....	0.10	N.D.
4,4'-DDT.....	0.10	N.D.
Dieldrin.....	0.10	N.D.
Endosulfan I.....	0.10	N.D.
Endosulfan II.....	0.10	N.D.
Endosulfan sulfate.....	0.50	N.D.
Endrin.....	0.10	N.D.
Endrin aldehyde.....	0.10	N.D.
Heptachlor.....	0.10	N.D.
Heptachlor epoxide.....	0.10	N.D.
Methoxychlor.....	0.10	N.D.
Toxaphene.....	4.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	71%
Decachlorobiphenyl (30-130).....	62%

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C 11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B27(GW/80)(5-7-99)
 Lab Number: PIE00349

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 26, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit	Sample Result
	µg/L (ppb)	
Aldrin.....	0.10	N.D.
alpha-BHC.....	0.10	N.D.
beta-BHC.....	0.10	N.D.
delta-BHC.....	0.25	N.D.
gamma-BHC (Lindane).....	0.10	N.D.
Chlordane.....	2.0	N.D.
4,4'-DDD.....	0.10	N.D.
4,4'-DDE.....	0.10	N.D.
4,4'-DDT.....	0.10	N.D.
Dieldrin.....	0.10	N.D.
Endosulfan I.....	0.10	N.D.
Endosulfan II.....	0.10	N.D.
Endosulfan sulfate.....	0.50	N.D.
Endrin.....	0.10	N.D.
Endrin aldehyde.....	0.10	N.D.
Heptachlor.....	0.10	N.D.
Heptachlor epoxide.....	0.10	N.D.
Methoxychlor.....	0.10	N.D.
Toxaphene.....	4.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	70%
Decachlorobiphenyl (30-130).....	56%

Results pertain only to samples tested in the laboratory. This report shall not be used for any other purpose without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1028
 1314 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 305, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B17(S/15)(5-7-99)
 Lab Number: PIE00350

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 20, 1999
 Reported: May 26, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit	Sample Result
	µg/Kg (ppb)	µg/Kg (ppb)
Aldrin.....	100	N.D.
alpha-BHC.....	100	N.D.
beta-BHC.....	100	N.D.
delta-BHC.....	200	N.D.
gamma-BHC (Lindane).....	100	N.D.
Chlordane.....	2,000	N.D.
4,4'-DDD.....	100	N.D.
4,4'-DDE.....	100	260
4,4'-DDT.....	100	N.D.
Dieldrin.....	100	N.D.
Endosulfan I.....	100	N.D.
Endosulfan II.....	100	N.D.
Endosulfan sulfate.....	400	N.D.
Endrin.....	100	N.D.
Endrin aldehyde.....	100	N.D.
Heptachlor.....	100	N.D.
Heptachlor epoxide.....	100	N.D.
Methoxychlor.....	100	N.D.
Toxaphene.....	4,000	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 20.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	Diluted out
Decachlorobiphenyl (30-130).....	Diluted out

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr. Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 7830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B17(S/65)(5-7-99)
 Lab Number: PIE00351

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 26, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)			µg/Kg (ppb)
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	79%
Decachlorobiphenyl (30-130).....	86%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C 11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1630 South 51st St., Suite B 120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B16(S/26)(5-7-99)
 Lab Number: PIE00352

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 26, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit	Sample Result
	µg/Kg (ppb)	µg/Kg (ppb)
Aldrin.....	50	N.D.
alpha-BHC.....	50	N.D.
beta-BHC.....	50	N.D.
delta-BHC.....	100	N.D.
gamma-BHC (Lindane).....	50	N.D.
Chlordane.....	1,000	N.D.
4,4'-DDD.....	50	N.D.
4,4'-DDE.....	50	93
4,4'-DDT.....	50	N.D.
Dieldrin.....	50	N.D.
Endosulfan I.....	50	N.D.
Endosulfan II.....	50	N.D.
Endosulfan sulfate.....	200	N.D.
Endrin.....	50	N.D.
Endrin aldehyde.....	50	N.D.
Heptachlor.....	50	N.D.
Heptachlor epoxide.....	50	N.D.
Methoxychlor.....	50	N.D.
Toxaphene.....	2,000	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	Diluted out
Decachlorobiphenyl (30-130).....	Diluted out

Results pertain only to samples tested in the laboratory. This report shall not be reproduced except in full without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Allan Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11 Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B16(S/30)(5-7-99)
 Lab Number: PIE00353

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 26, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)			$\mu\text{g/Kg}$ (ppb)
Aldrin.....	50	.....	N.D.
alpha-BHC.....	50	.....	N.D.
beta-BHC.....	50	.....	N.D.
delta-BHC.....	100	.....	N.D.
gamma-BHC (Lindane).....	50	.....	N.D.
Chlordane.....	1,000	.....	N.D.
4,4'-DDD.....	50	.....	N.D.
4,4'-DDE.....	50	.....	N.D.
4,4'-DDT.....	50	.....	N.D.
Dieldrin.....	50	.....	N.D.
Endosulfan I.....	50	.....	N.D.
Endosulfan II.....	50	.....	N.D.
Endosulfan sulfate.....	200	.....	N.D.
Endrin.....	50	.....	N.D.
Endrin aldehyde.....	50	.....	N.D.
Heptachlor.....	50	.....	N.D.
Heptachlor epoxide.....	50	.....	N.D.
Methoxychlor.....	50	.....	N.D.
Toxaphene.....	2,000	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	Diluted out
Decachlorobiphenyl (30-130).....	Diluted out

Robyn Rice
 Project Manager



Del Mar Analytical

1852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C 11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 305, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1930 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B16(S/75)(5-7-99)
 Lab Number: PIE00354

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 26, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit	Sample Result
	µg/Kg (ppb)		µg/Kg (ppb)
Aldrin.....	5.0	N.D.
alpha-BHC.....	5.0	N.D.
beta-BHC.....	5.0	N.D.
delta-BHC.....	10	N.D.
gamma-BHC (Lindane).....	5.0	N.D.
Chlordane.....	100	N.D.
4,4'-DDD.....	5.0	N.D.
4,4'-DDE.....	5.0	N.D.
4,4'-DDT.....	5.0	N.D.
Dieldrin.....	5.0	N.D.
Endosulfan I.....	5.0	N.D.
Endosulfan II.....	5.0	N.D.
Endosulfan sulfate.....	20	N.D.
Dieldrin.....	5.0	N.D.
Dieldrin aldehyde.....	5.0	N.D.
Heptachlor.....	5.0	N.D.
Heptachlor epoxide.....	5.0	N.D.
Methoxychlor.....	5.0	N.D.
Toxaphene.....	200	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	79%
Decachlorobiphenyl (30-130).....	87%

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical



Del Mar Analytical

2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 6525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 7830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water. QST-B17(GW/80)(5-7-99)
 Lab Number: PIE00348

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 26, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit	Sample Result
	µg/L (ppb)	µg/L (ppb)
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	63%



Del Mar Analytical

352 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 6525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, QST-B27(GW/80)(5-7-99)
 Lab Number: PIE00349

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 26, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)		µg/L (ppb)
Aroclor 1016.....	1.0	.....	N.D.
Aroclor 1221.....	1.0	.....	N.D.
Aroclor 1232.....	1.0	.....	N.D.
Aroclor 1242.....	1.0	.....	N.D.
Aroclor 1248.....	1.0	.....	N.D.
Aroclor 1254.....	1.0	.....	N.D.
Aroclor 1260.....	1.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	59%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

352 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C 11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B17(S/15)(5-7-99)
 Lab Number: PIE00350

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 13, 1999
 Reported: May 26, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	500	N.D.
Aroclor 1221.....	500	N.D.
Aroclor 1232.....	500	N.D.
Aroclor 1242.....	500	N.D.
Aroclor 1248.....	500	N.D.
Aroclor 1254.....	500	N.D.
Aroclor 1260.....	500	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	Diluted out

Robyn Rice
 Project Manager

Del Mar Analytical

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B17(S/65)(5-7-99)
 Lab Number: PIE00351

1352 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 1525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 13, 1999
 Reported: May 26, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)		$\mu\text{g/Kg}$ (ppb)
Aroclor 1016.....	50	.....	N.D.
Aroclor 1221.....	50	.....	N.D.
Aroclor 1232.....	50	.....	N.D.
Aroclor 1242.....	50	.....	N.D.
Aroclor 1248.....	50	.....	N.D.
Aroclor 1254.....	50	.....	N.D.
Aroclor 1260.....	50	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

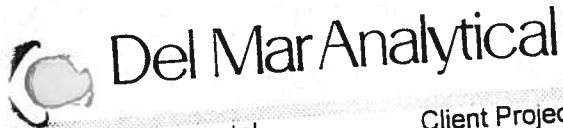
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	86%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00347.QST <12 of 47>



QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 3830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B16(S/26)(5-7-99)
 Lab Number: PIE00352

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 13, 1999
 Reported: May 26, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	250	N.D.
Aroclor 1221.....	250	N.D.
Aroclor 1232.....	250	N.D.
Aroclor 1242.....	250	N.D.
Aroclor 1248.....	250	N.D.
Aroclor 1254.....	250	N.D.
Aroclor 1260.....	250	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):
 Decachlorobiphenyl (30-130)..... Diluted out

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00347.QST <13 of 47>

Del Mar Analytical

QST Environmental
426 N. 44th St., Suite 110
Phoenix, AZ 85008
Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B16(S/30)(5-7-99)
Lab Number: PIE00353

Sampled: May 7, 1999
Received: May 7, 1999
Extracted: May 12, 1999
Analyzed: May 13, 1999
Reported: May 26, 1999

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C 11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
4484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)		$\mu\text{g/Kg}$ (ppb)
Aroclor 1016.....	250	.....	N.D.
Aroclor 1221.....	250	.....	N.D.
Aroclor 1232.....	250	.....	N.D.
Aroclor 1242.....	250	.....	N.D.
Aroclor 1248.....	250	.....	N.D.
Aroclor 1254.....	250	.....	N.D.
Aroclor 1260.....	250	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	Diluted out

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00347.QST <14 of 47>



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Culton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 10525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B16(S/75)(5-7-99)
 Lab Number: PIE00354

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 26, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	50	N.D.
Aroclor 1221.....	50	N.D.
Aroclor 1232.....	50	N.D.
Aroclor 1242.....	50	N.D.
Aroclor 1248.....	50	N.D.
Aroclor 1254.....	50	N.D.
Aroclor 1260.....	50	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	84%

Results pertain only to samples tested in the laboratory. This report shall not be

PIE00354 QST-B16(S/75)(5-7-99)



Del Mar Analytical

352 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mierher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B17(GW/80)(5-7-99)
 Lab Number: PIE00348

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	20	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	10	N.D.
Chlorobenzene.....	2.0	4.8	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	91%
Toluene-d8 (75-140).....	93%
4-Bromofluorobenzene (75-135).....	90%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

3852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Colley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 3830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B27(GW/80)(5-7-99)
 Lab Number: PIE00349

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	20	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	10	N.D.
Chlorobenzene.....	2.0	4.8	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane.....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	90%
Toluene-d8 (75-140).....	92%
4-Bromofluorobenzene (75-135).....	90%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00347.QST <17 of 47>



Del Mar Analytical

1852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 830 South 51st St., Suite B-120, Phoenix, AZ 85044 (602) 785-0043 FAX (480) 785 0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B17(S/15)(5-7-99)
 Lab Number: PIE00350

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 8, 1999
 Analyzed: May 12, 1999
 Reported: May 26, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	1000	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	500	N.D.
Chlorobenzene.....	100	270	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	120	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	76%
Toluene-d8 (50-135).....	79%
4-Bromofluorobenzene (70-130).....	76%

Results pertain only to samples tested in the laboratory. This report shall not be



Del Mar Analytical

QST Environmental
426 N. 44th St., Suite 110
Phoenix, AZ 85008
Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B17(S/65)(5-7-99)
Lab Number: PIE00351

Sampled: May 7, 1999
Received: May 7, 1999
Extracted: May 8, 1999
Analyzed: May 12, 1999
Reported: May 26, 1999

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C 11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
3830 South 51st St., Suite B 120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	1,300	N.D.	1,3-Dichloropropane.....	130	N.D.
Benzene.....	130	N.D.	2,2-Dichloropropane.....	130	N.D.
Bromobenzene.....	330	N.D.	1,1-Dichloropropene.....	130	N.D.
Bromochloromethane.....	330	N.D.	cis-1,3-Dichloropropene.....	130	N.D.
Bromodichloromethane.....	130	N.D.	trans-1,3-Dichloropropene...	130	N.D.
Bromoform.....	330	N.D.	Ethylbenzene.....	130	N.D.
Bromomethane.....	330	N.D.	Hexachlorobutadiene.....	330	N.D.
2-Butanone (MEK).....	650	N.D.	2-Hexanone.....	650	N.D.
n-Butylbenzene.....	330	N.D.	Iodomethane.....	130	N.D.
sec-Butylbenzene.....	330	N.D.	Isopropylbenzene.....	130	N.D.
tert-Butylbenzene.....	330	N.D.	p-Isopropyltoluene.....	130	N.D.
Carbon Disulfide.....	330	N.D.	Methylene chloride.....	650	N.D.
Carbon tetrachloride.....	330	N.D.	4-Methyl-2-pentanone (MIBK).....	650	N.D.
Chlorobenzene.....	130	N.D.	Methyl-tert-butyl ether (MTBE).....	330	N.D.
Chloroethane.....	330	N.D.	Naphthalene.....	330	N.D.
2-Chloroethyl vinyl ether.....	330	N.D.	n-Propylbenzene.....	130	N.D.
Chloroform.....	130	N.D.	Styrene.....	130	N.D.
Chloromethane.....	330	N.D.	1,1,1,2-Tetrachloroethane....	330	N.D.
2-Chlorotoluene.....	330	N.D.	1,1,2,2-Tetrachloroethane....	130	N.D.
4-Chlorotoluene.....	330	N.D.	Tetrachloroethene.....	130	N.D.
Dibromochloromethane.....	130	N.D.	Toluene.....	130	N.D.
1,2-Dibromo-3-chloropropane....	330	N.D.	1,2,3-Trichlorobenzene.....	330	N.D.
1,2-Dibromoethane (EDB).....	130	N.D.	1,2,4-Trichlorobenzene.....	330	N.D.
Dibromomethane.....	130	N.D.	1,1,1-Trichloroethane.....	130	N.D.
1,2-Dichlorobenzene.....	130	N.D.	1,1,2-Trichloroethane.....	130	N.D.
1,3-Dichlorobenzene.....	130	N.D.	Trichloroethene.....	130	N.D.
1,4-Dichlorobenzene.....	130	N.D.	Trichlorofluoromethane.....	330	N.D.
Dichlorodifluoromethane.....	330	N.D.	1,2,3-Trichloropropane.....	650	N.D.
1,1-Dichloroethane.....	130	N.D.	1,2,4-Trimethylbenzene.....	130	N.D.
1,2-Dichloroethane.....	130	N.D.	1,3,5-Trimethylbenzene.....	130	N.D.
1,1-Dichloroethene.....	330	N.D.	Vinyl acetate.....	330	N.D.
cis-1,2-Dichloroethene.....	130	N.D.	Vinyl chloride.....	330	N.D.
trans-1,2-Dichloroethene.....	130	N.D.	Xylenes (Total).....	390	N.D.
1,2-Dichloropropane.....	130	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 1.3.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	83%
Toluene-d8 (50-135).....	87%
4-Bromofluorobenzene (70-130).....	82%

Robyn Rice
Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00347.QST <19 of 47>



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B16(S/26)(5-7-99)
 Lab Number: PIE00352

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 8, 1999
 Analyzed: May 12, 1999
 Reported: May 26, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	1000	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	500	N.D.
Chlorobenzene.....	100	240	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	690
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	200	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	77%
Toluene-d8 (50-135).....	79%
4-Bromofluorobenzene (70-130).....	76%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

352 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1028
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 2830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B16(S/30)(5-7-99)
 Lab Number: PIE00353

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 8, 1999
 Analyzed: May 12, 1999
 Reported: May 26, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	1000	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	500	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	320
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	140	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	76%
Toluene-d8 (50-135).....	80%
4-Bromofluorobenzene (70-130).....	77%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B16(S/75)(5-7-99)
 Lab Number: PIE00354

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 8, 1999
 Analyzed: May 12, 1999
 Reported: May 26, 1999

2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 2484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785 0043 FAX (480) 785-0851

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	1000	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	500	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	83%
Toluene-d8 (50-135).....	87%
4-Bromofluorobenzene (70-130).....	84%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



QST Environmental
426 N. 44th St., Suite 110
Phoenix, AZ 85008
Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, QST-B17(GW/80)(5-7-99)
Lab Number: PIE00348

Sampled: May 7, 1999
Received: May 7, 1999
Extracted: May 12, 1999
Analyzed: May 14, 1999
Reported: May 26, 1999

352 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Coolidge Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
330 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benzo(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine
Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	70%
Phenol-d6 (40-115).....	76%
2,4,6-Tribromophenol (40-140).....	94%
Nitrobenzene-d5 (35-120).....	64%
2-Fluorobiphenyl (30-150).....	79%
Terphenyl-d14 (45-150).....	81%

Robyn Rice
Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11 Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 3830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B27(GW/80)(5-7-99)
 Lab Number: PIE00349

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 26, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	62%
Phenol-d6 (40-115).....	69%
2,4,6-Tribromophenol (40-140).....	94%
Nitrobenzene-d5 (35-120).....	58%
2-Fluorobiphenyl (30-150).....	71%
Terphenyl-d14 (45-150).....	83%

Robyn Rice
 Project Manager



Del Mar Analytical

QST Environmental
426 N. 44th St., Suite 110
Phoenix, AZ 85008
Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
Sample Descript: Soil, QST-B17(S/15)(5-7-99)
Lab Number: PIE00350

Sampled: May 7, 1999
Received: May 7, 1999
Extracted: May 12, 1999
Analyzed: May 14, 1999
Reported: May 26, 1999

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C 11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
3830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	1,000	N.D.	Dimethyl phthalate.....	1,000	N.D.
Acenaphthylene.....	1,000	N.D.	4,6-Dinitro-2-methylphenol.....	2,500	N.D.
Aniline.....	1,500	N.D.	2,4-Dinitrophenol.....	2,500	N.D.
Anthracene.....	1,000	N.D.	2,4-Dinitrotoluene.....	1,000	N.D.
Azobenzene.....	1,500	N.D.	2,6-Dinitrotoluene.....	1,000	N.D.
Benzidine.....	10,000	N.D.	Di-N-octyl phthalate.....	5,000	N.D.
Benzoic Acid.....	5,000	N.D.	Fluoranthene.....	1,000	N.D.
Benz(a)anthracene.....	1,000	N.D.	Fluorene.....	1,000	N.D.
Benzo(b)fluoranthene.....	2,000	N.D.	Hexachlorobenzene.....	1,000	N.D.
Benzo(k)fluoranthene.....	2,000	N.D.	Hexachlorobutadiene.....	1,000	N.D.
Benzo(g,h,i)perylene.....	1,500	N.D.	Hexachlorocyclopentadiene.....	5,000	N.D.
Benzo(a)pyrene.....	1,500	N.D.	Hexachloroethane.....	2,000	N.D.
Benzyl alcohol.....	2,000	N.D.	Indeno(1,2,3-cd)pyrene.....	2,000	N.D.
Bis(2-chloroethoxy)methane.....	1,000	N.D.	Isophorone.....	1,000	N.D.
Bis(2-chloroethyl)ether.....	1,000	N.D.	2-Methylnaphthalene.....	1,000	N.D.
Bis(2-chloroisopropyl)ether.....	1,000	N.D.	2-Methylphenol.....	1,500	N.D.
Bis(2-ethylhexyl)phthalate.....	10,000	N.D.	4-Methylphenol.....	1,500	N.D.
4-Bromophenyl phenyl ether.....	1,500	N.D.	Naphthalene.....	1,500	N.D.
Butyl benzyl phthalate.....	5,000	N.D.	2-Nitroaniline.....	2,000	N.D.
4-Chloroaniline.....	1,000	N.D.	3-Nitroaniline.....	2,000	N.D.
2-Chloronaphthalene.....	1,000	N.D.	4-Nitroaniline.....	5,000	N.D.
4-Chloro-3-methylphenol.....	1,000	N.D.	Nitrobenzene.....	5,000	N.D.
2-Chlorophenol.....	2,500	N.D.	2-Nitrophenol.....	1,000	N.D.
4-Chlorophenyl phenyl ether.....	1,000	N.D.	4-Nitrophenol.....	5,000	N.D.
Chrysene.....	1,000	N.D.	N-Nitrosodiphenylamine.....	2,000	N.D.
Dibenz(a,h)anthracene.....	1,000	N.D.	N-Nitroso-di-N-propylamine.....	1,500	N.D.
Dibenzofuran.....	1,000	N.D.	Pentachlorophenol.....	5,000	N.D.
Di-N-butyl phthalate.....	2,500	N.D.	Phenanthrene.....	1,000	N.D.
1,3-Dichlorobenzene.....	1,000	N.D.	Phenol.....	1,500	N.D.
1,4-Dichlorobenzene.....	1,000	N.D.	Pyrene.....	1,500	N.D.
1,2-Dichlorobenzene.....	1,000	N.D.	1,2,4-Trichlorobenzene.....	1,000	N.D.
3,3-Dichlorobenzidine.....	5,000	N.D.	2,4,5-Trichlorophenol.....	1,500	N.D.
2,4-Dichlorophenol.....	1,000	N.D.	2,4,6-Trichlorophenol.....	1,500	N.D.
Diethyl phthalate.....	1,000	N.D.			
2,4-Dimethylphenol.....	2,500	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 10.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-110).....	46%
Phenol-d6 (35-110).....	59%
2,4,6-Tribromophenol (40-110).....	82%
Nitrobenzene-d5 (30-110).....	70%
2-Fluorobiphenyl (40-110).....	76%
Terphenyl-d14 (45-110).....	84%

Robyn Rice
Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11 Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 3830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil. QST-B17(S/65)(5-7-99)
 Lab Number: PIE00351

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 13, 1999
 Analyzed: May 14, 1999
 Reported: May 26, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-110).....	68%
Phenol-d6 (35-110).....	79%
2,4,6-Tribromophenol (40-110).....	103%
Nitrobenzene-d5 (30-110).....	75%
2-Fluorobiphenyl (40-110).....	83%
Terphenyl-d14 (45-110).....	87%



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C 11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 4484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 3830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B16(S/26)(5-7-99)
 Lab Number: PIE00352

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 13, 1999
 Analyzed: May 14, 1999
 Reported: May 26, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	4,000	N.D.	Dimethyl phthalate.....	4,000	N.D.
Acenaphthylene.....	4,000	N.D.	4,6-Dinitro-2-methylphenol.....	10,000	N.D.
Aniline.....	6,000	N.D.	2,4-Dinitrophenol.....	10,000	N.D.
Anthracene.....	4,000	N.D.	2,4-Dinitrotoluene.....	4,000	N.D.
Azobenzene.....	6,000	N.D.	2,6-Dinitrotoluene.....	4,000	N.D.
Benzidine.....	40,000	N.D.	Di-N-octyl phthalate.....	20,000	N.D.
Benzoic Acid.....	20,000	N.D.	Fluoranthene.....	4,000	4,400
Benz(a)anthracene.....	4,000	N.D.	Fluorene.....	4,000	N.D.
Benzo(b)fluoranthene.....	8,000	N.D.	Hexachlorobenzene.....	4,000	N.D.
Benzo(k)fluoranthene.....	8,000	N.D.	Hexachlorobutadiene.....	4,000	N.D.
Benzo(g,h,i)perylene.....	6,000	N.D.	Hexachlorocyclopentadiene.....	20,000	N.D.
Benzo(a)pyrene.....	6,000	N.D.	Hexachloroethane.....	8,000	N.D.
Benzyl alcohol.....	8,000	N.D.	Indeno(1,2,3-cd)pyrene.....	8,000	N.D.
Bis(2-chloroethoxy)methane.....	4,000	N.D.	Isophorone.....	4,000	N.D.
Bis(2-chloroethyl)ether.....	4,000	N.D.	2-Methylnaphthalene.....	4,000	N.D.
Bis(2-chloroisopropyl)ether.....	4,000	N.D.	2-Methylphenol.....	6,000	N.D.
Bis(2-ethylhexyl)phthalate.....	40,000	N.D.	4-Methylphenol.....	6,000	N.D.
4-Bromophenyl phenyl ether.....	6,000	N.D.	Naphthalene.....	6,000	N.D.
Butyl benzyl phthalate.....	20,000	N.D.	2-Nitroaniline.....	8,000	N.D.
4-Chloroaniline.....	4,000	N.D.	3-Nitroaniline.....	8,000	N.D.
2-Chloronaphthalene.....	4,000	N.D.	4-Nitroaniline.....	20,000	N.D.
4-Chloro-3-methylphenol.....	4,000	N.D.	Nitrobenzene.....	20,000	N.D.
2-Chlorophenol.....	10,000	N.D.	2-Nitrophenol.....	4,000	N.D.
4-Chlorophenyl phenyl ether.....	4,000	N.D.	4-Nitrophenol.....	20,000	N.D.
Chrysene.....	4,000	N.D.	N-Nitrosodiphenylamine.....	8,000	N.D.
Dibenz(a,h)anthracene.....	4,000	N.D.	N-Nitroso-di-N-propylamine.....	6,000	N.D.
Dibenzofuran.....	4,000	N.D.	Pentachlorophenol.....	20,000	N.D.
Di-N-butyl phthalate.....	10,000	N.D.	Phenanthrene.....	4,000	N.D.
1,3-Dichlorobenzene.....	4,000	N.D.	Phenol.....	6,000	N.D.
1,4-Dichlorobenzene.....	4,000	N.D.	Pyrene.....	6,000	N.D.
1,2-Dichlorobenzene.....	4,000	N.D.	1,2,4-Trichlorobenzene.....	4,000	N.D.
3,3-Dichlorobenzidine.....	20,000	N.D.	2,4,5-Trichlorophenol.....	6,000	N.D.
2,4-Dichlorophenol.....	4,000	N.D.	2,4,6-Trichlorophenol.....	6,000	N.D.
Diethyl phthalate.....	4,000	N.D.			
2,4-Dimethylphenol.....	10,000	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 40.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-110).....	55%
Phenol-d6 (35-110).....	71%
2,4,6-Tribromophenol (40-110).....	73%
Nitrobenzene-d5 (30-110).....	66%
2-Fluorobiphenyl (40-110).....	63%
Terphenyl-d14 (45-110).....	84%

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieber

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil. QST-B16(S/30)(5-7-99)
 Lab Number: PIE00353

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 13, 1999
 Analyzed: May 14, 1999
 Reported: May 26, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	2,000	N.D.	Dimethyl phthalate.....	2,000	N.D.
Acenaphthylene.....	2,000	N.D.	4,6-Dinitro-2-methylphenol.....	5,000	N.D.
Aniline.....	3,000	N.D.	2,4-Dinitrophenol.....	5,000	N.D.
Anthracene.....	2,000	N.D.	2,4-Dinitrotoluene.....	2,000	N.D.
Azobenzene.....	3,000	N.D.	2,6-Dinitrotoluene.....	2,000	N.D.
Benzidine.....	20,000	N.D.	Di-N-octyl phthalate.....	10,000	N.D.
Benzoic Acid.....	10,000	N.D.	Fluoranthene.....	2,000	2,400
Benz(a)anthracene.....	2,000	N.D.	Fluorene.....	2,000	N.D.
Benzo(b)fluoranthene.....	4,000	N.D.	Hexachlorobenzene.....	2,000	N.D.
Benzo(k)fluoranthene.....	4,000	N.D.	Hexachlorobutadiene.....	2,000	N.D.
Benzo(g,h,i)perylene.....	3,000	N.D.	Hexachlorocyclopentadiene.....	10,000	N.D.
Benzo(a)pyrene.....	3,000	N.D.	Hexachloroethane.....	4,000	N.D.
Benzyl alcohol.....	4,000	N.D.	Indeno(1,2,3-cd)pyrene.....	4,000	N.D.
Bis(2-chloroethoxy)methane.....	2,000	N.D.	Isophorone.....	2,000	N.D.
Bis(2-chloroethyl)ether.....	2,000	N.D.	2-Methylnaphthalene.....	2,000	N.D.
Bis(2-chloroisopropyl)ether.....	2,000	N.D.	2-Methylphenol.....	3,000	N.D.
Bis(2-ethylhexyl)phthalate.....	20,000	N.D.	4-Methylphenol.....	3,000	N.D.
4-Bromophenyl phenyl ether.....	3,000	N.D.	Naphthalene.....	3,000	N.D.
Butyl benzyl phthalate.....	10,000	N.D.	2-Nitroaniline.....	4,000	N.D.
4-Chloroaniline.....	2,000	N.D.	3-Nitroaniline.....	4,000	N.D.
2-Chloronaphthalene.....	2,000	N.D.	4-Nitroaniline.....	10,000	N.D.
4-Chloro-3-methylphenol.....	2,000	N.D.	Nitrobenzene.....	10,000	N.D.
2-Chlorophenol.....	5,000	N.D.	2-Nitrophenol.....	2,000	N.D.
4-Chlorophenyl phenyl ether.....	2,000	N.D.	4-Nitrophenol.....	10,000	N.D.
Chrysene.....	2,000	N.D.	N-Nitrosodiphenylamine.....	4,000	N.D.
Dibenz(a,h)anthracene.....	2,000	N.D.	N-Nitroso-di-N-propylamine.....	3,000	N.D.
Dibenzofuran.....	2,000	N.D.	Pentachlorophenol.....	10,000	N.D.
Di-N-butyl phthalate.....	5,000	N.D.	Phenanthrene.....	2,000	N.D.
1,3-Dichlorobenzene.....	2,000	N.D.	Phenol.....	3,000	N.D.
1,4-Dichlorobenzene.....	2,000	N.D.	Pyrene.....	3,000	N.D.
1,2-Dichlorobenzene.....	2,000	N.D.	1,2,4-Trichlorobenzene.....	2,000	N.D.
3,3-Dichlorobenzidine.....	10,000	N.D.	2,4,5-Trichlorophenol.....	3,000	N.D.
2,4-Dichlorophenol.....	2,000	N.D.	2,4,6-Trichlorophenol.....	3,000	N.D.
Diethyl phthalate.....	2,000	N.D.			
2,4-Dimethylphenol.....	5,000	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 20.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-110).....	60%
Phenol-d6 (35-110).....	73%
2,4,6-Tribromophenol (40-110).....	63%
Nitrobenzene-d5 (30-110).....	77%
2-Fluorobiphenyl (40-110).....	68%
Terphenyl-d14 (45-110).....	92%

Robyn Rice
 Project Manager



Del Mar Analytical

1952 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1028
 1914 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C 11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1844
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B16(S/75)(5-7-99)
 Lab Number: PIE00354

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 13, 1999
 Analyzed: May 14, 1999
 Reported: May 26, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-110).....	70%
Phenol-d6 (35-110).....	81%
2,4,6-Tribromophenol (40-110).....	93%
Nitrobenzene-d5 (30-110).....	72%
2-Fluorobiphenyl (40-110).....	85%
Terphenyl-d14 (45-110).....	95%

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B17(GW/80)(5-7-99)
 Lab Number: PIE00348

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 10, 1999
 Analyzed: May 10-19, 1999
 Reported: May 26, 1999

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/10/99	05/19/99
Arsenic.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/10/99	05/11/99
Cadmium.....	EPA 200.7	0.0050	N.D.	05/10/99	05/11/99
Chromium.....	EPA 200.7	0.010	0.043	05/10/99	05/11/99
Copper.....	EPA 200.7	0.020	0.068	05/10/99	05/19/99
Lead.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Mercury.....	EPA 245.1	0.00020	N.D.	05/10/99	05/10/99
Nickel.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Selenium.....	EPA 200.7	0.060	N.D.	05/10/99	05/11/99
Silver.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Thallium.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Zinc.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1023
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1141
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B27(GW/80)(5-7-99)
 Lab Number: PIE00349

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 10, 1999
 Analyzed: May 10-19, 1999
 Reported: May 26, 1999

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/10/99	05/19/99
Arsenic.....	EPA 200.7	0.050	0.099	05/10/99	05/11/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/10/99	05/11/99
Cadmium.....	EPA 200.7	0.0050	N.D.	05/10/99	05/11/99
Chromium.....	EPA 200.7	0.010	0.051	05/10/99	05/11/99
Copper.....	EPA 200.7	0.020	0.080	05/10/99	05/19/99
Lead.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Mercury.....	EPA 245.1	0.00020	N.D.	05/10/99	05/10/99
Nickel.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Selenium.....	EPA 200.7	0.060	N.D.	05/10/99	05/11/99
Silver.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Thallium.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Zinc.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B17(S/15)(5-7-99)
 Lab Number: PIE00350

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 10-12, 1999
 Analyzed: May 11-22, 1999
 Reported: May 26, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Arsenic.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/10/99	05/22/99
Cadmium.....	EPA 6010B	0.50	9.9	05/10/99	05/11/99
Chromium.....	EPA 6010B	2.0	19	05/10/99	05/11/99
Copper.....	EPA 6010B	2.5	89	05/10/99	05/11/99
Lead.....	EPA 6010B	2.5	63	05/10/99	05/11/99
Mercury.....	EPA 7471A	0.020	0.18	05/12/99	05/12/99
Nickel.....	EPA 6010B	2.5	24	05/10/99	05/11/99
Selenium.....	EPA 6010B	10	N.D.	05/10/99	05/11/99
Silver.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Thallium.....	EPA 6010B	5.0	N.D.	05/10/99	05/19/99
Zinc.....	EPA 6010B	2.5	220	05/10/99	05/11/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



Del Mar Analytical

QST Environmental
426 N. 44th St., Suite 110
Phoenix, AZ 85008
Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B17(S/65)(5-7-99)
Lab Number: PIE00351

Sampled: May 7, 1999
Received: May 7, 1999
Extracted: May 10-24, 1999
Analyzed: May 11-25, 1999
Reported: May 26, 1999

12852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1028
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C 11 Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Arsenic.....	EPA 6010B	5.0	9.2	05/10/99	05/11/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/10/99	05/22/99
Cadmium.....	EPA 6010B	0.50	1.0	05/10/99	05/11/99
Chromium.....	EPA 6010B	2.0	21	05/10/99	05/11/99
Copper.....	EPA 6010B	2.5	33	05/24/99	05/25/99
Lead.....	EPA 6010B	2.5	4.6	05/10/99	05/11/99
Mercury.....	EPA 7471A	0.020	N.D.	05/12/99	05/12/99
Nickel.....	EPA 6010B	2.5	13	05/10/99	05/11/99
Selenium.....	EPA 6010B	10	N.D.	05/10/99	05/11/99
Silver.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Thallium.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Zinc.....	EPA 6010B	2.5	32	05/24/99	05/25/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
Project Manager



Del Mar Analytical

3852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11 Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B16(S/26)(5-7-99)
 Lab Number: PIE00352

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 10-24, 1999
 Analyzed: May 11-25, 1999
 Reported: May 26, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Arsenic.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 6010B	10*	N.D.	05/10/99	05/22/99
Cadmium.....	EPA 6010B	0.50	2.9	05/10/99	05/11/99
Chromium.....	EPA 6010B	2.0	26	05/10/99	05/11/99
Copper.....	EPA 6010B	2.5	99	05/24/99	05/25/99
Lead.....	EPA 6010B	2.5	78	05/10/99	05/11/99
Mercury.....	EPA 7471A	0.020	0.29	05/12/99	05/12/99
Nickel.....	EPA 6010B	2.5	29	05/10/99	05/11/99
Selenium.....	EPA 6010B	10	N.D.	05/10/99	05/11/99
Silver.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Thallium.....	EPA 6010B	5.0	5.5	05/10/99	05/11/99
Zinc.....	EPA 6010B	2.5	200	05/10/99	05/11/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 20.

 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



Del Mar Analytical

3852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1344 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mierher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B16(S/30)(5-7-99)
 Lab Number: PIE00353

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 10-24, 1999
 Analyzed: May 11-25, 1999
 Reported: May 26, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/10/99	05/20/99
Arsenic.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 6010B	10*	N.D.	05/10/99	05/22/99
Cadmium.....	EPA 6010B	0.50	2.0	05/10/99	05/11/99
Chromium.....	EPA 6010B	2.0	20	05/10/99	05/11/99
Copper.....	EPA 6010B	2.5	40	05/24/99	05/25/99
Lead.....	EPA 6010B	2.5	30	05/10/99	05/11/99
Mercury.....	EPA 7471A	0.020	0.40	05/12/99	05/12/99
Nickel.....	EPA 6010B	2.5	15	05/10/99	05/11/99
Selenium.....	EPA 6010B	10	N.D.	05/10/99	05/11/99
Silver.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Thallium.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Zinc.....	EPA 6010B	2.5	260	05/10/99	05/11/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 20.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1943
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 3830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B16(S/75)(5-7-99)
 Lab Number: PIE00354

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 10-24, 1999
 Analyzed: May 11-25, 1999
 Reported: May 26, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/10/99	05/20/99
Arsenic.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/10/99	05/22/99
Cadmium.....	EPA 6010B	0.50	1.4	05/10/99	05/11/99
Chromium.....	EPA 6010B	2.0	25	05/10/99	05/11/99
Copper.....	EPA 6010B	2.5	30	05/24/99	05/25/99
Lead.....	EPA 6010B	2.5	5.0	05/10/99	05/11/99
Mercury.....	EPA 7471A	0.020	N.D.	05/12/99	05/12/99
Nickel.....	EPA 6010B	2.5	24	05/10/99	05/11/99
Selenium.....	EPA 6010B	10	N.D.	05/10/99	05/11/99
Silver.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Thallium.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Zinc.....	EPA 6010B	2.5	27	05/24/99	05/25/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 405, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 3830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 26, 1999
 Matrix: Water

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit	Sample Result
	µg/L (ppb)		µg/L (ppb)
Aldrin.....	0.10	N.D.
alpha-BHC.....	0.10	N.D.
beta-BHC.....	0.10	N.D.
delta-BHC.....	0.25	N.D.
gamma-BHC (Lindane).....	0.10	N.D.
Chlordane.....	2.0	N.D.
4,4'-DDD.....	0.10	N.D.
4,4'-DDE.....	0.10	N.D.
4,4'-DDT.....	0.10	N.D.
Dieldrin.....	0.10	N.D.
Endosulfan I.....	0.10	N.D.
Endosulfan II.....	0.10	N.D.
Endosulfan sulfate.....	0.50	N.D.
Endrin.....	0.10	N.D.
Endrin aldehyde.....	0.10	N.D.
Heptachlor.....	0.10	N.D.
Heptachlor epoxide.....	0.10	N.D.
Methoxychlor.....	0.10	N.D.
Toxaphene.....	4.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	84%
Decachlorobiphenyl (30-130).....	80%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4867 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 12, 1999
 Analyzed: May 13, 1999
 Reported: May 26, 1999
 Matrix: Soil

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit	Sample Result
	µg/Kg (ppb)	µg/Kg (ppb)
Aldrin.....	5.0	N.D.
alpha-BHC.....	5.0	N.D.
beta-BHC.....	5.0	N.D.
delta-BHC.....	10	N.D.
gamma-BHC (Lindane).....	5.0	N.D.
Chlordane.....	100	N.D.
4,4'-DDD.....	5.0	N.D.
4,4'-DDE.....	5.0	N.D.
4,4'-DDT.....	5.0	N.D.
Dieldrin.....	5.0	N.D.
Endosulfan I.....	5.0	N.D.
Endosulfan II.....	5.0	N.D.
Endosulfan sulfate.....	20	N.D.
Endrin.....	5.0	N.D.
Endrin aldehyde.....	5.0	N.D.
Heptachlor.....	5.0	N.D.
Heptachlor epoxide.....	5.0	N.D.
Methoxychlor.....	5.0	N.D.
Toxaphene.....	200	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	91%
Decachlorobiphenyl (30-130).....	98%

Results pertain only to samples tested in the laboratory. This report shall not be

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 26, 1999
 Matrix: Water

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)			µg/L (ppb)
Aroclor 1016.....	1.0	.....	N.D.
Aroclor 1221.....	1.0	.....	N.D.
Aroclor 1232.....	1.0	.....	N.D.
Aroclor 1242.....	1.0	.....	N.D.
Aroclor 1248.....	1.0	.....	N.D.
Aroclor 1254.....	1.0	.....	N.D.
Aroclor 1260.....	1.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept Limits):	
Tetrachloro-m-xylene (30-130)....	94%
Decachlorobiphenyl (30-130).....	85%

Robyn Rice
 Project Manager



Del Mar Analytical

3952 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C 11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 12, 1999
 Analyzed: May 12, 1999
 Reported: May 26, 1999
 Matrix: Soil

POLYCHLORINATED BIPHENYLS by GC (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	50	N.D.
Aroclor 1221.....	50	N.D.
Aroclor 1232.....	50	N.D.
Aroclor 1242.....	50	N.D.
Aroclor 1248.....	50	N.D.
Aroclor 1254.....	50	N.D.
Aroclor 1260.....	50	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	77%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 21, 1999
 Matrix: Water

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	20	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	10	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

*See Corrective Action Report.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	73%
Toluene-d8 (75-140).....	75%
4-Bromofluorobenzene (75-135).....	73%*

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 8, 1999
 Analyzed: May 12, 1999
 Reported: May 26, 1999
 Matrix: Soil

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	1000	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene.....	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	500	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane.....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane.....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	88%
Toluene-d8 (50-135).....	91%
4-Bromofluorobenzene (70-130).....	88%

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieber

Method Blank

Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 26, 1999
 Matrix: Water

352 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1023
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 1525 Sherman Way, Suite C 11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 484 Chesapeake Dr., Suite #05, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	60%
Phenol-d6 (40-115).....	65%
2,4,6-Tribromophenol (40-140).....	77%
Nitrobenzene-d5 (35-120).....	54%
2-Fluorobiphenyl (30-150).....	67%
Terphenyl-d14 (45-150).....	82%

Soil Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 12, 1999
 Analyzed: May 13, 1999
 Reported: May 26, 1999
 Matrix: Soil

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-110).....	51%
Phenol-d6 (35-110).....	57%
2,4,6-Tribromophenol (40-110).....	63%
Nitrobenzene-d5 (30-110).....	50%
2-Fluorobiphenyl (40-110).....	64%
Terphenyl-d14 (45-110).....	72%

QST Environmental
426 N. 44th St., Suite 110
Phoenix, AZ 85008
Attention: John Miehler

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
4494 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
3830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Method Blank

Extracted: May 13, 1999
Analyzed: May 14, 1999
Reported: May 26, 1999
Matrix: Soil

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	200	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	150	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	200	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	1,000	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	150	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	500	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	100	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	250	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	100	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	250	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	100	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	500	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-110).....	69%
Phenol-d6 (35-110).....	77%
2,4,6-Tribromophenol (40-110).....	92%
Nitrobenzene-d5 (30-110).....	73%
2-Fluorobiphenyl (40-110).....	76%
Terphenyl-d14 (45-110).....	86%



Del Mar Analytical

2352 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 18525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 6484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 3830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 10, 1999
 Analyzed: May 10-19, 1999
 Reported: May 26, 1999
 Matrix: Water

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/10/99	05/19/99
Arsenic.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/10/99	05/11/99
Cadmium.....	EPA 200.7	0.0050	N.D.	05/10/99	05/11/99
Chromium.....	EPA 200.7	0.010	N.D.	05/10/99	05/11/99
Copper.....	EPA 200.7	0.020	N.D.	05/10/99	05/19/99
Lead.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Mercury.....	EPA 245.1	0.00020	N.D.	05/10/99	05/10/99
Nickel.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Selenium.....	EPA 200.7	0.060	N.D.	05/10/99	05/11/99
Silver.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Thallium.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Zinc.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 10-24, 1999
 Analyzed: May 11-25, 1999
 Reported: May 26, 1999
 Matrix: Soil

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/10/99	May 11-20, 1999
Arsenic.....	EPA 6010B	5.0	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 6010B	0.50	N.D.	05/10/99	05/22/99
Cadmium.....	EPA 6010B	0.50	N.D.	05/10/99	05/11/99
Chromium.....	EPA 6010B	2.0	N.D.	05/10/99	05/11/99
Copper.....	EPA 6010B	2.5	N.D.	May 10-24, 1999	May 11-25, 1999
Lead.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Mercury.....	EPA 7471A	0.020	N.D.	05/12/99	05/12/99
Nickel.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Selenium.....	EPA 6010B	10	N.D.	05/10/99	05/11/99
Silver.....	EPA 6010B	2.5	N.D.	05/10/99	05/11/99
Thallium.....	EPA 6010B	5.0	N.D.	05/10/99	May 11-19, 1999
Zinc.....	EPA 6010B	2.5	N.D.	May 10-24, 1999	May 11-25, 1999

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

MS/MSD DATA REPORT

EPA Method: 8081
 Matrix: Water
 Instrument: GC

Date: 05/12/99
 Sample #: LCS/LCSD*
 Batch #: IE11PE1W

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
DDE	0	0.5	0.388	0.416	78%	83%	7%	40	55-125
DDD	0	0.5	0.410	0.442	82%	88%	8%	20	60-130
DDT	0	0.5	0.430	0.469	86%	94%	9%	20	55-145

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provide

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.
- QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) Note: This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



MS/MSD DATA REPORT

EPA Method: 8081A
 Matrix: Soil
 Instrument: GC

Date: 5/13/99
 Sample #: LCS/LCSD*
 Batch #: IE12PE1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
DDE	0	20	18.6	17.5	93%	88%	6%	50	20-145
DDD	0	20	20.4	18.8	102%	94%	8%	30	50-130
DDT	0	20	22.6	21.3	113%	107%	6%	30	20-160

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



Del Mar Analytical

GC CALIBRATION CHECK CRITERIA

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Method: 8081A
 QC Batch: #6

Associated Samples: PIE00347

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
B-BHC	2	82

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result. All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result. An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

1352 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

GC CALIBRATION CHECK CRITERIA

Method: 8081A
 QC Batch: E12 #24

Associated Samples: PIE00347

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
B-BHC	2	74
D-BHC	1	125
Endrin Ketone	1	117

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

GC CALIBRATION CHECK CRITERIA

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Method: 8081A
 QC Batch: E12 #6

Associated Samples: PIE00347

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
B-BHC	2	73

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result. All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result. An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



GC CALIBRATION CHECK CRITERIA

Method: 8081A
QC Batch: E13 #33

Associated Samples: PIE00347

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
B-BHC	2	84
D-BHC	1	127
Endrin Ketone	1	118

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result. All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result. An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
2830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

GC CALIBRATION CHECK CRITERIA

Method: 8081A
QC Batch: E13 #23

Associated Samples: PIE00347

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
B-BHC	2	72
D-BHC	1	127
DDT	1	116
Endosulfan Sulfate	1	117
Methoxychlor	1	117
Endrin Ketone	1	122

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

GC CALIBRATION CHECK CRITERIA

Method: 8081A
QC Batch: E13 #10

Associated Samples: PIE00347

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
D-BHC	1	117

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 8082 (PCB's only)
 Matrix: Water
 Instrument: GC

Date: 5/12/99
 Sample #: LCS/LCSD*
 Batch #: IE11PE1W

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
PCB 1016 (Arochlor)	0	4.0	3.28	3.33	82%	83%	2%	50	60-140
PCB 1260 (Arochlor)	0	4.0	2.95	3.10	74%	78%	5%	50	60-140

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)

This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 8082 (PCB's only)
 Matrix: Soil
 Instrument: GC

Date: 5/12/99
 Sample #: IE00786
 Batch #: IE12PE1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
PCB 1016 (Arochlor)	0	160	145	91.6	91%	57%	45%	50	60-140
PCB 1260 (Arochlor)	0	160	130	99.1	81%	62%	27%	50	60-140

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91408 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD 8082

DATE: 5/12/99

Analyte

St

LCS

PR

ppb

ppb

%

Aroclor 1016
Aroclor 1260

160	140	88%
160	135	84%

Definition of Terms:

St. Standard Concentration

LCS. Laboratory Control Sample Result

PR. Percent Recovery of LCS; $(LCS/St) \times 100$

QA/QC CRITERIA: QA/QC is within acceptance limits.

Del Mar Analytical



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

GC CALIBRATION CHECK CRITERIA

Method: 8082
 QC Batch: E14

Associated Samples: PIE00347

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
# 39 AR 1016/1260	1	131/124
# 54 AR 1016/1260	1	142/134
# 68 AR 1016/1260	1	122/116
# 75 AR 1016/1260	1	144/140

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

GC CALIBRATION CHECK CRITERIA

Method: 8082
QC Batch: E13

Associated Samples: PIE00347

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
# 39 AR 1260	1	116

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



MS/MSD DATA REPORT

EPA Method: 8260B
 Matrix: Water
 Instrument: GCMS

Date: 05/11/99
 Sample #: PIE00264
 Batch #: IE11011W

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Vinyl Chloride	59.7	25	74.7	70.6	60%	44%	6%	≤ 20	45-170%
1,1-Dichloroethene	0.0	25	27.5	27.6	110%	110%	0.4%	≤ 20	70-130%
1,1-Dichloroethane	0.0	25	24.3	24.3	97%	97%	0.0%	≤ 20	80-135%
Chloroform	0.0	25	25.0	25.1	100%	100%	0.4%	≤ 20	80-135%
1,2-Dichloroethane	0.0	25	21.5	21.6	86%	86%	0.5%	≤ 20	80-130%
Benzene	0.0	25	29.0	28.9	116%	116%	0.3%	≤ 20	75-135%
Trichloroethene	2.8	25	26.2	27.4	94%	98%	4.5%	≤ 20	75-130%
Toluene	0.0	25	25.4	26.4	102%	106%	3.9%	≤ 20	75-135%
Tetrachloroethene	0.0	25	23.4	24.5	94%	98%	4.6%	≤ 20	70-135%
Chlorobenzene	4.5	25	28.2	28.6	95%	96%	1.4%	≤ 20	75-125%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92608 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 8260B

BATCH: IE11011W
 DATE: 5/11/99

Analyte	St	R1	PR	QC Limits
	ppb	ppb	%	%
Vinyl Chloride	25	25.7	103%	25-200
1,1-Dichloroethene	25	29.4	118%	55-165
1,1-Dichloroethane	25	24.5	98%	65-155
Chloroform	25	25.5	102%	65-150
1,2-Dichloroethane	25	21.4	86%	65-155
Benzene	25	29.4	118%	60-155
Trichloroethene	25	24.6	98%	60-150
Toluene	25	27.2	109%	65-155
Tetrachloroethene	25	24.2	97%	60-155
Chlorobenzene	25	24.3	97%	65-145

Definition of Terms:

St. Concentration standard added to sample

R1. Standard Result

PR. Percent Recovery

Del Mar Analytical



CORRECTIVE ACTION REPORT

Department: GC/MS Method: 8260B
Date: 05/11/99 Matrix: Water
Associated Samples: PIE00194, PIE00263-266, PIE00321-323, PIE00348-349
PIE00368-369, PIE00393-400

Identification and Definition of Problem:

The Method Blank analyzed in QC batch IE11011W had low recovery for surrogate 4-Bromofluorobenzene. 73% recovery is below the current control limits.

Determination of the Cause of the Problem:

Current Del Mar Analytical control limits are 75-130% for this surrogate. No cause could be determined for this one low recovery.

Corrective Action:

No further corrective action was taken because all associated sample recoveries were within control limits. Subsequent Method Blank surrogate recoveries were acceptable.

June Schaper: June Schaper Date: 6/1/99
Quality Assurance Manager

BS/BSD DATA REPORT

EPA Method: 8260B
 Bench: Soil
 Instrument: GCMS

Date: 05/12/99
 Sample #: PIE00350
 Batch #: IE12011S

Acceptance Limits

Analyte	<u>R1</u>	<u>Sp</u>	<u>BS</u>	<u>BSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	RPD %	PR1/PR2 %
Vinyl Chloride	0.0	1250	505	796	40%	64%	44.7%	≤ 112	0-100%
1,1-Dichloroethene	0.0	1250	1200	1175	96%	94%	2.1%	≤ 20	70-125%
1,1-Dichloroethane	0.0	1250	1091	1107	87%	89%	1.5%	≤ 20	75-115%
Chloroform	0.0	1250	1080	1080	86%	86%	0.0%	≤ 26	75-120%
1,2-Dichloroethane	0.0	1250	985	1021	79%	82%	3.6%	≤ 20	70-115%
Benzene	0.0	1250	1211	1202	97%	96%	0.7%	≤ 20	80-120%
Trichloroethene	0.0	1250	1042	1110	83%	89%	6.3%	≤ 20	75-120%
Toluene	0.0	1250	1074	1109	86%	89%	3.2%	≤ 20	80-125%
Tetrachloroethene	0.0	1250	1014	1036	81%	83%	2.1%	≤ 20	75-120%
Chlorobenzene	265	1250	1286	1333	82%	85%	4%	≤ 20	75-115%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- BS..... Bench Spike Result
- BSD..... Bench Spike Duplicate Result
- PR1..... Percent Recovery of BS; $((BS-R1)/SP) \times 100$
- PR2..... Percent Recovery of BSD; $((BSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((BS-BSD)/(BS+BSD)/2) \times 100$
- Acceptance Limits..... Determined by Control Charts

QA/QC Criteria..... All QA/QC was within acceptance limits.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785 0043 FAX (480) 735 0851

MS/MSD DATA REPORT

EPA Method: 8270
 Matrix: Water
 Instrument: GCMS

Date: 05/14/99
 Sample #: LCS/LCSD*
 Batch #: IE12SE1W

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Phenol	0.1	50.0	34.0	33.0	68%	66%	3%	15	40-110
2-Chlorophenol	0.0	50.0	34.0	33.0	68%	66%	3%	15	40-110
1,4-Dichlorobenzene	0.0	50.0	30.0	29.0	60%	58%	3%	15	35-110
N-Nitroso-di-n-propylamine	0.0	50.0	36.0	36.0	72%	72%	0%	20	45-120
1,2,4-Trichlorobenzene	0.0	50.0	31.0	30.0	62%	60%	3%	15	44-110
Chloro-3-methylphenol	0.0	50.0	40.0	38.0	80%	76%	5%	20	50-115
Acenaphthene	0.0	50.0	37.0	33.0	74%	66%	11%	15	50-115
2,4-Dinitrotoluene	0.0	50.0	42.0	40.0	84%	80%	5%	15	55-120
4-Nitrophenol	0.0	50.0	47.0	43.0	94%	86%	9%	15	45-120
Pentachlorophenol	0.0	50.0	48.0	44.0	96%	88%	9%	20	50-125
Pyrene	0.0	50.0	43.0	41.0	86%	82%	5%	25	70-120

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1)/SP) x 100
- PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) x 100
- RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) x 100
- Acceptance Limits..... Statistically determined on an annual basis.

Q/QC Criteria..... All QA/QC criteria was within acceptance limits.



MS/MSD DATA REPORT

EPA Method: 8270B
 Matrix: Soil
 Instrument: GCMS

Date: 05/13/99
 Sample #: IE00900
 Batch #: IE12SE1S

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Phenol	0.0	50.0	26.0	22.0	52%	44%	17%	20	30-95
2-Chlorophenol	0.0	50.0	25.0	21.0	50%	42%	17%	25	30-100
1,4-Dichlorobenzene	0.0	50.0	23.0	20.0	46%	40%	14%	30	25-90
N-Nitroso-di-n-propylamine	0.0	50.0	28.0	23.0	56%	46%	20%	20	35-100
1,2,4-Trichlorobenzene	0.0	50.0	25.0	21.0	50%	42%	17%	25	30-95
Chloro-3-methylphenol	0.0	50.0	31.0	27.0	62%	54%	14%	25	40-110
Acenaphthene	0.1	50.0	28.0	27.0	56%	54%	4%	15	35-105
2,4-Dinitrotoluene	0.0	50.0	35.0	37.0	70%	74%	6%	20	35-110
4-Nitrophenol	0.0	50.0	39.0	40.0	78%	80%	3%	25	15-135
Pentachlorophenol	0.0	50.0	35.0	38.0	70%	76%	8%	30	30-115
Pyrene	0.0	50.0	41.0	46.0	82%	92%	11%	25	30-140

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC is within acceptance limits.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 8270B
 Matrix: Soil
 Instrument: GCMS

Date: 05/14/99
 Sample #: IE01110
 Batch #: IE13SE1S

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Phenol	0.1	50.0	44.0	45.0	88%	90%	2%	20	30-95
2-Chlorophenol	0.0	50.0	45.0	43.0	90%	86%	5%	25	30-100
1,4-Dichlorobenzene	0.1	50.0	34.0	35.0	68%	70%	3%	30	25-90
N-Nitroso-di-n-propylamine	0.0	50.0	50.0	46.0	100%	92%	8%	20	35-100
1,2,4-Trichlorobenzene	0.0	50.0	40.0	43.0	80%	86%	7%	25	30-95
Chloro-3-methylphenol	0.1	50.0	46.0	51.0	92%	102%	10%	25	40-110
Acenaphthene	0.1	50.0	46.0	50.0	92%	100%	8%	15	35-105
2,4-Dinitrotoluene	0.0	50.0	48.0	54.0	96%	108%	12%	20	35-110
4-Nitrophenol	1.9	50.0	54.0	62.0	104%	120%	14%	25	15-135
Pentachlorophenol	0.0	50.0	58.0	63.0	116%	126%	8%	30	30-115
Pyrene	0.0	50.0	45.0	49.0	90%	98%	9%	25	30-140

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.
- QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 8270

DATE: 5/14/99

Analyte	St	R1	PR
	ppb	ppb	%
Phenol	50	40	80%
2-Chlorophenol	50	38	76%
1,4-Dichlorobenzene	50	34	68%
n-Nitroso-di-n-propylamine	50	42	84%
1,2,4-Trichlorobenzene	50	38	76%
4-Chloro-3-Methylphenol	50	46	92%
Acenaphthene	50	45	90%
2,4-Dinitrotoluene	50	52	104%
4-Nitrophenol	50	58	116%
1,2,4-Trichlorobenzene	50	62	124%
Phenol	50	42	84%

Definition of Terms:

St. Total of standard added to sample

R1. Standard Result

PR. Percent Recovery

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical



Del Mar Analytical

3852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 3830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/11/99
 Sample #: PIE00214

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Arsenic	0	1.0	0.992	1.02	99%	102%	2.8%	101%
Beryllium	0	1.0	0.984	1.01	98%	101%	2.6%	100%
Cadmium	0	1.0	0.891	0.911	89%	91%	2.2%	90%
Chromium	0	1.0	0.882	0.898	88%	90%	1.8%	89%
Lead	0	1.0	0.877	0.889	88%	89%	1.3%	88%
Nickel	0	1.0	0.854	0.873	85%	87%	2.2%	86%
Selenium	0	1.0	0.882	0.901	88%	90%	2.1%	89%
Silver	0	0.05	0.0507	0.0540	101%	108%	6.3%	105%
Thallium	0	1.0	0.809	0.822	81%	82%	1.6%	82%
Zinc	0	1.0	0.997	1.02	100%	102%	2.3%	101%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
 MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 245.1
 Matrix: Water
 Instrument: N/A

Date: 05/10/99
 Sample #: PIE00240
 Batch #: IE10HG1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppm	ppm	ppm	ppm	%	%	%	RPD	PR1/PR2
Mercury	0	0.00500	0.00548	0.00539	110%	108%	1.7%	≤ 20	70-130%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC was within acceptance limit.



MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/21/99
 Sample #: PIE00214

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony	0	1.0	1.03	1.04	103%	104%	1.0%	104%
Arsenic	0	1.0	1.05	1.07	105%	107%	1.9%	106%
Copper	0	1.0	1.02	1.05	102%	105%	2.9%	104%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
 MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/24/99
 Sample #: PIE00651

Analyte								MEAN
	R1	SP	MS	MSD	PR1	PR2	RPD	PR
	ppm	ppm	ppm	ppm	%	%	%	%
Copper	36.1	50.0	80.6	81.0	89%	90%	0.5%	89%
Zinc	111	50.0	151	158	80%	94%	4.5%	87%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/21/99
 Sample #: PIE00281

Analyte								MEAN
	R1	SP	MS	MSD	PR1	PR2	RPD	PR
	ppm	ppm	ppm	ppm	%	%	%	%
Beryllium	0	50.0	48.7	52.7	97%	105%	7.9%	101%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/11/99
 Sample #: PIE00281

Analyte	MEAN							
	R1	SP	MS	MSD	PR1	PR2	RPD	PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony*	0	50.0	*	*	*	*	*	*
Arsenic	5.79	50.0	51.4	52.7	91%	94%	2.5%	93%
Cadmium	1.93	50.0	50.3	51.4	97%	99%	2.2%	98%
Chromium	67.6	50.0	114	125	93%	115%	9.2%	104%
Copper**	1790	50.0	1770	2350	**	**	28.2%	**
Lead*	80.8	50.0	125	145	88%	128%	14.8%	108%
Nickel*	50.1	50.0	92.9	130	86%	160%	33.3%	123%
Selenium	0	50.0	47.8	46.7	96%	93%	2.3%	95%
Silver	0	50.0	54.2	55.8	108%	112%	2.9%	110%
Thallium	0	50.0	41.3	41.5	83%	83%	0.5%	83%
Zinc**	536	50.0	576	907	80%	**	44.6%	**

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1) / SP) X 100
- PR2..... Percent Recovery of MSD; ((MSD-R1) / SP) X 100
- RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: **Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See LCS for batch validation.

*The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 6525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 95044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
INSTRUMENT: ICP
MATRIX: Soil

DATE: 5/11/99

Analyte	St	R1	PR
	ppm	ppm	%
Antimony	50.0	46.0	92%
Copper	50.0	46.4	93%
Lead	50.0	44.4	89%
Nickel	50.0	44.4	89%
Zinc	50.0	44.4	89%

Definition of Terms:

- St. Standard Concentration
- R1. Standard Result
- PR. Percent Recovery of R1; $(R1/St) \times 100$
- Acceptance Limits LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/19/99
 Sample #: PIE00281

Analyte								MEAN
	R1	SP	MS	MSD	PR1	PR2	RPD	PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony	9.45	50.0	30.1	36.0	41%	53%	17.9%	47%
Beryllium	0	50.0	45.9	46.4	92%	93%	1.1%	92%
Thallium	0	50.0	42.8	40.0	86%	80%	6.8%	83%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

DATE: 5/19/99

Analyte	St	R1	PR
	ppm	ppm	%
Antimony	50.0	48.7	97%

Definition of Terms:

- St. Standard Concentration
- R1. Standard Result
- PR. Percent Recovery of R1: $(R1/St) \times 100$
- Acceptance Limits LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

EPA Method: 7471A
 Matrix: Soil
 Instrument: N/A

Date: 05/12/99
 Sample #: PIE00579
 Batch #: IE12HG1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppm	ppm	ppm	ppm	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
Mercury	0	0.333	0.313	0.303	94%	91%	3%	≤ 20	85-115%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC was within acceptance limits.



CORRECTIVE ACTION REPORT

Department: GC/MS Method: 8270
Date: 05/14/99 Matrix: Soil
Batch: IE12SE1S

Identification and Definition of Problem:

The Laboratory Control Sample (LCS) recovered low (54%) and outside of the 70-120% acceptance limits for the compound Pyrene.

Determination of the Cause of the Problem:

No cause could be determined for the low recovery. It is suspected that the low recovery in the LCS may have been due to temperature inconsistencies in the extract concentrator.

Corrective Action:

The batch was validated based upon the acceptable Matrix Spike (82%) and Matrix Spike Duplicate (92%) recoveries for Pyrene as well as the acceptable surrogate recoveries in the samples and Quality Control samples. The sample results for Pyrene should be considered biased low.

June Schaper: June Schaper
Quality Assurance Manager

Date: 6/3 1999



May 25, 1999

Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, Arizona 85044
Attn: Robyn Rice

Report of Laboratory Results: ARF number: 30243

Dear Ms. Rice:

Two water and five soil samples for Project Number 'PIE00347.QST' were received May 11, 1999, in good condition. Written results are being provided on this May 25, 1999, for the requested analyses. All holding times were met. No unusual problems or complications were encountered with this sample set.

Sample Table

Sample Description	Del Mar ID	APPL Inc. ID	Sample Date
Water	PIE00348	78775w	05/07/99
Water	PIE00349	78776w	05/07/99
Soil	PIE00350	78777s	05/07/99
Soil	PIE00351	78878s	05/07/99
Soil	PIE00352	78879s	05/07/99
Soil	PIE00353	78880s	05/07/99
Soil	PIE00354	78881s	05/07/99

If you have any questions or require further information, please contact us at your convenience. Thank you for choosing APPL, Inc.

Sincerely,

Mike Ray, Laboratory Director
APPL, Inc.

EPA 8141

Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00347.QST

Sample ID: PIE00348

Sample Collection Date: 5/7/99

ARF: 30243

APPL ID AP78775

QCG: \$8141W-990513A-16601

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	5.0	ug/L	5/13/99	5/18/99
EPA 8141	Bolstar	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Chlorpyrifos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Coumaphos	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Def	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Demeton-s	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Diazinon	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Dichlorvos	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Dimethoate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Disulfoton	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	EPN	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ethion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ethoprop	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Fensulfothion	Not detected	2.5	ug/L	5/13/99	5/18/99
EPA 8141	Fenthion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Malathion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Merphos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Mevinphos	Not detected	3.5	ug/L	5/13/99	5/18/99
EPA 8141	Naled	Not detected	2.5	ug/L	5/13/99	5/18/99
EPA 8141	Parathion, ethyl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Parathion, methyl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Phorate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Prowl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ronnel	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Stirophos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Sulfotep	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Tepp	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Tokuthion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Trichloronate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Trifluralin	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Surrogate: Tributylphosphate	77.4	60-150	%	5/13/99	5/18/99
EPA 8141	Surrogate: Triphenylphosphate	72.8 #	76-140	%	5/13/99	5/18/99

Recovery is outside QC limits.

Run #: 517043
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

Printed: 5/18/99 9:27:40 AM

EPA 8141

Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00347.QST

Sample ID: PIE00349

Sample Collection Date: 5/7/99

ARF: 30243

APPL ID AP78776

QCG: \$8141W-990513A-16601

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	5.0	ug/L	5/13/99	5/18/99
EPA 8141	Bolstar	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Chlorpyrifos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Coumaphos	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Def	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Demeton-s	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Diazinon	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Dichlorvos	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Dimethoate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Disulfoton	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	EPN	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ethion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ethoprop	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Fensulfothion	Not detected	2.5	ug/L	5/13/99	5/18/99
EPA 8141	Fenthion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Malathion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Merphos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Mevinphos	Not detected	3.5	ug/L	5/13/99	5/18/99
EPA 8141	Naled	Not detected	2.5	ug/L	5/13/99	5/18/99
EPA 8141	Parathion, ethyl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Parathion, methyl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Phorate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Prowl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ronnel	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Stirophos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Sulfotep	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Tepp	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Tokuthion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Trichloronate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Trifluralin	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Surrogate: Tributylphosphate	78.3	60-150	%	5/13/99	5/18/99
EPA 8141	Surrogate: Triphenylphosphate	72.2 #	76-140	%	5/13/99	5/18/99

Recovery is outside QC limits.

Run #: 517044
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

EPA 8141 OP Pesticides

Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00347.QST

Sample ID: PIE00350

Sample Collection Date: 5/7/99

ARF: 30243

APPL ID AP78777

QCG: \$8141S-990514AS-16647

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/14/99	5/20/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/14/99	5/20/99
EPA 8141	Def	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/14/99	5/20/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/14/99	5/20/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/14/99	5/20/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/14/99	5/20/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/14/99	5/20/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/14/99	5/20/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Surrogate: Tributylphosphate	119	51-154	%	5/14/99	5/20/99
EPA 8141	Surrogate: Triphenylphosphate	108	63-151	%	5/14/99	5/20/99

Run #: 517105
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

EPA 8141 OP Pesticides

Al Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00347.QST

Sample ID: PIE00351

Sample Collection Date: 5/7/99

ARF: 30243

APPL ID AP78778

QCG: \$8141S-990514AS-16647

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/14/99	5/19/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Def	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/14/99	5/19/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/14/99	5/19/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/14/99	5/19/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Surrogate: Tributylphosphate	85.2	51-154	%	5/14/99	5/19/99
EPA 8141	Surrogate: Triphenylphosphate	90.2	63-151	%	5/14/99	5/19/99

Run #: 517066
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

EPA 8141 OP Pesticides

Del Mar Analytical
 830 South 51st. St., Ste B-120
 Phoenix, AZ 85044

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00347.QST

Sample ID: **PIE00352**

Sample Collection Date: 5/7/99

ARF: 30243

APPL ID AP78779

QCG: \$8141S-990514AS-16647

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/14/99	5/19/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Def	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/14/99	5/19/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/14/99	5/19/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/14/99	5/19/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Surrogate: Tributylphosphate	84.5	51-154	%	5/14/99	5/19/99
EPA 8141	Surrogate: Triphenylphosphate	90.9	63-151	%	5/14/99	5/19/99

Run #: 517067
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

EPA 8141 OP Pesticides

Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00347.QST

Sample ID: PIE00353

Sample Collection Date: 5/7/99

ARF: 30243

APPL ID AP78780

QCG: \$8141S-990514AS-16647

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/14/99	5/20/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/14/99	5/20/99
EPA 8141	Def	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/14/99	5/20/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/14/99	5/20/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/14/99	5/20/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/14/99	5/20/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/14/99	5/20/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/14/99	5/20/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Strofos	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Trifuralin	Not detected	50	ug/Kg	5/14/99	5/20/99
EPA 8141	Surrogate: Tributylphosphate	143	51-154	%	5/14/99	5/20/99
EPA 8141	Surrogate: Triphenylphosphate	113	63-151	%	5/14/99	5/20/99

Run #: 517106
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

EPA 8141 OP Pesticides

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00347.QST

Sample ID: PIE00354

Sample Collection Date: 5/7/99

ARF: 30243

APPL ID AP78781

QCG: \$8141S-990514AS-16647

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/14/99	5/19/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Def	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/14/99	5/19/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Maiathion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/14/99	5/19/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/14/99	5/19/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Surrogate: Tributylphosphate	85.3	51-154	%	5/14/99	5/19/99
EPA 8141	Surrogate: Triphenylphosphate	88.1	63-151	%	5/14/99	5/19/99

Run #: 517069
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

EPA 8151 Herbicides

Del Mar Analytical
100 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice
Project: PIE00347.QST
Sample ID: PIE00348
Sample Collection Date: 5/7/99

ARF: 30243
APPL ID AP78775
QCG: \$8151-990512WA-16620

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	0.50	ug/L	5/12/99	5/18/99
EPA 8151	Dalapon	Not detected	1.0	ug/L	5/12/99	5/18/99
EPA 8151	2,4-DB	Not detected	1.0	ug/L	5/12/99	5/18/99
EPA 8151	Dicamba	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/12/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/12/99	5/18/99
EPA 8151	MCPA	Not detected	100	ug/L	5/12/99	5/18/99
EPA 8151	MCPP	Not detected	100	ug/L	5/12/99	5/18/99
EPA 8151	2,4,5-T	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	Surrogate Recovery	93.6	61-120	%	5/12/99	5/18/99

Run #: 53
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 1:21:37 PM

EPA 8151 Herbicides

Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00347.QST

Sample ID: PIE00349

Sample Collection Date: 5/7/99

ARF: 30243

APPL ID AP78776

QCG: \$8151-990512WA-16620

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	0.50	ug/L	5/12/99	5/18/99
EPA 8151	Dalapon	Not detected	1.0	ug/L	5/12/99	5/18/99
EPA 8151	2,4-DB	Not detected	1.0	ug/L	5/12/99	5/18/99
EPA 8151	Dicamba	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/12/99	5/18/99
EPA 8151	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/12/99	5/18/99
EPA 8151	MCPA	Not detected	100	ug/L	5/12/99	5/18/99
EPA 8151	MCPP	Not detected	100	ug/L	5/12/99	5/18/99
EPA 8151	2,4,5-T	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	2,4,5-TP	Not detected	0.10	ug/L	5/12/99	5/18/99
EPA 8151	Surrogate Recovery	85.0	61-120	%	5/12/99	5/18/99

Run #: 54
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 1:21:37 PM

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

Attn: Robyn Rice
Project: PIE00347.QST
Sample ID: PIE00350
Sample Collection Date: 5/7/99

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

ARF: 30243
APPL ID AP78777
QCG: \$8151S-990517SA-16689

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/17/99	5/20/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/17/99	5/20/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/17/99	5/20/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/17/99	5/20/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/17/99	5/20/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/17/99	5/20/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/17/99	5/20/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	Surrogate recovery	111	93-141	%	5/17/99	5/20/99

Run #: 103
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00347.QST

Sample ID: PIE00351

Sample Collection Date: 5/7/99

ARF: 30243

APPL ID AP78778

QCG. S8151S-990517SA-16689

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/17/99	5/20/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/17/99	5/20/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/17/99	5/20/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/17/99	5/20/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/17/99	5/20/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/17/99	5/20/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/17/99	5/20/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	Surrogate recovery	112	93-141	%	5/17/99	5/20/99

Run #: 104
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00347.QST

Sample ID: PIE00352

Sample Collection Date: 5/7/99

ARF: 30243

APPL ID AP78779

QCG: \$8151S-990517SA-16689

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/17/99	5/20/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/17/99	5/20/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/17/99	5/20/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/17/99	5/20/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/17/99	5/20/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/17/99	5/20/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/17/99	5/20/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	Surrogate recovery	110	93-141	%	5/17/99	5/20/99

Run #: 105
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

Attn: Robyn Rice
Project: PIE00347.QST
Sample ID: PIE00353
Sample Collection Date: 5/7/99

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

ARF: 30243
APPL ID AP78780
QCG: \$8151S-990517SA-16689

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/17/99	5/20/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/17/99	5/20/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/17/99	5/20/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/17/99	5/20/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/17/99	5/20/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/17/99	5/20/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/17/99	5/20/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	Surrogate recovery	116	93-141	%	5/17/99	5/20/99

Run #: 109
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00347.QST

Sample ID: PIE00354

Sample Collection Date: 5/7/99

ARF: 30243

APPL ID AP78781

QCG: \$8151S-990517SA-16689

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/17/99	5/20/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/17/99	5/20/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/17/99	5/20/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/17/99	5/20/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/17/99	5/20/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/17/99	5/20/99
EPA 8151	MCPPP	Not detected	40000	ug/kg	5/17/99	5/20/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	Surrogate recovery	105	93-141	%	5/17/99	5/20/99

Run #: 110
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Method Blank

EPA 8141 OP Pesticides

Blank Name/QCG: 990514S - 16647
 Batch ID: S8141S-990514AS

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	Azinphosmethyl	Not detected	500	ug/kg	5/14/99	5/18/99
BLANK	Bolstar	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Chlorpyrifos	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Coumaphos	Not detected	100	ug/kg	5/14/99	5/18/99
BLANK	Def	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Demeton-s	Not detected	100	ug/kg	5/14/99	5/18/99
BLANK	Diazinon	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Dichlorvos	Not detected	100	ug/kg	5/14/99	5/18/99
BLANK	Dimethoate	Not detected	100	ug/kg	5/14/99	5/18/99
BLANK	Disulfoton	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	EPN	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Ethion	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Ethoprop	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Fensulfothion	Not detected	250	ug/kg	5/14/99	5/18/99
BLANK	Fenthion	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Malathion	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Merphos	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Mevinphos	Not detected	350	ug/kg	5/14/99	5/18/99
BLANK	Naled	Not detected	250	ug/kg	5/14/99	5/18/99
BLANK	Parathion, ethyl	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Parathion, methyl	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Phorate	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Prowl	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Ronnel	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Stirophos	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Sulfotep	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	TEPP	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Tokuthion	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Trichloronate	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Trifluralin	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Surrogate: Tributylphosphate	82.1	51-154	%	5/14/99	5/18/99
BLANK	Surrogate: Triphenylphosphate	81.2	63-151	%	5/14/99	5/18/99

Run #: 517046
Instrument: NPD03
Sequence: 990517
Initials: FML

Laboratory Control Spike - LCS

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141

APPL Sample #: **990514AS LCS**

Date/Initials: 5/20/99 FML

Extraction Date: 5/14/99

Matrix Type: SOIL

Units: ug/kg

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Phorate	83.3	*****	58.6	70.3
Diazinon * %	83.3	*****	702	842
Disulfoton	83.3	*****	78.6	94.3
Methyl parathion	83.3	*****	75.0	90.0
Stirophos	83.3	*****	80.5	96.6
Ethion	83.3	*****	59.6	71.6

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Tributyl phosphate	167	*****	143	85.8
Triphenyl phosphatate	167	*****	140	84.1

	Prim Col	Sec Col
	Spike	Spike
Analysis Date:	5/18/99	
Analysis Time:	3:23 PM	
Instrument:	NPD03B	
Column:	DB-5	
Sample/Vial #:	47	
Extraction Ratio:	10/30	
Dilution Factor:	1	

Comments:	* Diazinon reported from 517097, DF 1:10.
	% Diazinon out of QC limits, possible sample contamination .

	Soil	Water
Phorate	26-98	22-96
Diazinon	61-139	57-130
Disulfoton	14-131	47-117
Meth Parathion	63-153	55-164
Stirophos	58-140	68-128
Ethion	66-131	65-134
Tributyl phosphate	51-154	60-150
Triphenyl phosphate	63-151	76-140

Matrix / Control Spike Recoveries

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141

APPL Sample #: **78586S MS/MSD**

Date/Initials: 5/25/99 FML

Extraction Date: 5/14/99

Matrix Type: SOIL

Units: ug/kg

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery	%RPD (See below)
Phorate	83.3	0.000	57.6	69.1	57.9	69.4	0.5
Diazinon #	83.3	7600	11700	4920	9670	2484	19
Disulfoton @	83.3	0.000	186	223	173	207	7.4
Methyl parathion	83.3	0.000	99.1	119	100	120	1.2
Stirophos	83.3	0.000	82.3	98.8	83.6	100	1.5
Ethion	83.3	0.000	59.7	71.7	60.7	72.8	1.5

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery
Tributyl phosphate	167	*****	144	86.2	145	87.0
Triphenyl phosphat	167	*****	137	82.2	137	82.1

	Primary Column	
	Spike	Spk Dup
Analysis Date:	5/18/99	5/18/99
Analysis Time:	4:01 PM	6:30 PM
Instrument:	NPD03B	NPD03B
Column:	DB-5	DB-5
Sample/Vial #:	48	52
Extraction Ratio:	10/30	10/30
Dilution Factor:	1	1

Secondary Column	
Spike	Spk Dup

Comments:	# Diazinon reported from 524024,524025, DF 1:200, NPD03.
	# Matrix results from 524023, df 1:200,NPD03
	§ Disulfoton affected by diazinon(baseline) is out of QC.

	Soil	Water	Soil RPD	Water RPD
Phorate	26-98	22-96	21	24
Diazinon	61-139	57-130	24	21
Disulfoton	14-131	47-117	26	22
Meth Parathion	63-153	55-164	19	24
Stirophos	58-140	68-128	21	25
Ethion	66-131	65-134	36	20
Tributyl phosphate	51-154	60-150	NA	NA
Triphenyl phosphate	63-151	76-140	NA	NA

Method Blank

EPA 8141

Blank Name/QCG: 990513W - 16601
 Batch ID: \$8141W-990513A

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	Azinphosmethyl	Not detected	5.0	ug/L	5/13/99	5/18/99
BLANK	Boistar	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Chlorpyrifos	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Coumaphos	Not detected	1.0	ug/L	5/13/99	5/18/99
BLANK	Def	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Demeton-s	Not detected	1.0	ug/L	5/13/99	5/18/99
BLANK	Diazinon	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Dichlorvos	Not detected	1.0	ug/L	5/13/99	5/18/99
BLANK	Dimethoate	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Disulfoton	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	EPN	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Ethion	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Ethoprop	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Fensulfothion	Not detected	2.5	ug/L	5/13/99	5/18/99
BLANK	Fenthion	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Malathion	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Merphos	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Mevinphos	Not detected	3.5	ug/L	5/13/99	5/18/99
BLANK	Naled	Not detected	2.5	ug/L	5/13/99	5/18/99
BLANK	Parathion, ethyl	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Parathion, methyl	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Phorate	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Prowl	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Ronnel	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Stirophos	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Sulfotep	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Tepp	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Tokuthion	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Trichloronate	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Trifluralin	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Surrogate: Tributylphosphate	82.8	60-150	%	5/13/99	5/18/99
BLANK	Surrogate: Triphenylphosphate	76.2	76-140	%	5/13/99	5/18/99

Run #: 517027
Instrument: NPD03
Sequence: 990517
Initials: FML

Matrix / Control Spike Recoveries

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: **990513AW LCS/LCSD**
Date/Initials: 5/18/99 FML
Extraction Date: 5/13/99
Matrix Type: WATER
Units: ug/L

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery	%RPD (See below)
Phorate	2.50	0.00	1.65	66.2	1.76	70.6	6.4
Diazinon	2.50	0.00	2.51	101	2.62	105	4.2
Disulfoton	2.50	0.00	1.79	71.7	1.89	75.8	5.5
Methyl parathion	2.50	0.00	1.97	78.6	2.02	80.9	2.9
Stirophos	2.50	0.00	2.12	84.9	2.21	88.3	3.9
Ethion	2.50	0.00	1.74	69.6	1.81	72.4	4.0

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery
Tributyl phosphate	5.00	*****	4.12	82.4	4.27	85.5
Triphenyl phosphate	5.00	*****	3.88	77.7	4.17	83.4

	Primary Column		Secondary Column	
	Spike	Spk Dup	Spike	Spk Dup
Analysis Date:	5/18/99	5/18/99		
Analysis Time:	3:34 AM	4:11 AM		
Instrument:	NPD03B	NPD03B		
Column:	DB-5	DB-5		
Sample/Vial #:	28	29		
Extraction Ratio:	10/1000	10/1000		
Dilution Factor:	1	1		

Comments:

	Soil	Water	Soil RPD	Water RPD
Phorate	26-98	22-96	21	24
Diazinon	61-139	57-130	24	21
Disulfoton	14-131	47-117	26	22
Meth Parathion	63-153	55-164	19	24
Stirophos	58-140	68-128	21	25
Ethion	66-131	65-134	36	20
Tributyl phosphate	51-154	60-150	NA	NA
Triphenyl phosphate	63-151	76-140	NA	NA

MATIRX SPIKE

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: 78753 MS
Date/Initials: 5/19/99 FML
Extraction Date: 5/13/99
Matrix Type: Water
Units: ug/L

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Phorate	2.50	*****	1.81	72.3
Diazinon	2.50	*****	2.53	101
Disulfoton	2.50	*****	2.09	83.4
Methyl parathion	2.50	*****	2.21	88.2
Stirophos	2.50	*****	2.39	95.6
Ethion	2.50	*****	1.82	72.7

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Tributyl phosphate	5.00	*****	4.24	84.8
Triphenyl phosphat	5.00	*****	4.20	84.0

	Prim Col	Sec Col
	Spike	Spike
Analysis Date:	5/18/99	
Analysis Time:	7:08 PM	
Instrument:	NPD03B	
Column:	DB-5	
Sample/Vial #:	53	
Extraction Ratio:	10/1000	
Dilution Factor:	1	

Comments:

	Soil	Water
Phorate	26-98	22-96
Diazinon	61-139	57-130
Disulfoton	14-131	47-117
Meth Parathion	63-153	55-164
Stirophos	58-140	68-128
Ethion	66-131	65-134
Tributyl phosphate	51-154	60-150
Triphenyl phosphate	63-151	76-140

Method Blank
EPA 8151 Herbicides

Blank Name/QCG: 990512W - 16620
Batch ID: S8151-990512WA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	2,4-D	Not detected	0.50	ug/L	5/12/99	5/18/99
BLANK	Daiaoon	Not detected	1.0	ug/L	5/12/99	5/18/99
BLANK	2,4-DB	Not detected	1.0	ug/L	5/12/99	5/18/99
BLANK	Dicamba	Not detected	0.10	ug/L	5/12/99	5/18/99
BLANK	Dichlorproo (2,4-DP)	Not detected	0.50	ug/L	5/12/99	5/18/99
BLANK	Cinoseo (DNBP)	Not detected	0.25	ug/L	5/12/99	5/18/99
BLANK	MCPA	Not detected	100	ug/L	5/12/99	5/18/99
BLANK	MCPP	Not detected	100	ug/L	5/12/99	5/18/99
BLANK	2,4,5-T	Not detected	0.10	ug/L	5/12/99	5/18/99
BLANK	2,4,5-TP	Not detected	0.10	ug/L	5/12/99	5/18/99
BLANK	Surrogate recovery	89.5	51-120	%	5/12/99	5/18/99

Run #: 44
Instrument: ECD01
Sequence: 990517
Initials: KW

Laboratory Control Spike Recoveries
EPA 8151 Herbicides

APPL ID 990512W-78767 LCS/LCSD - 16620
 Batch ID: S8151-990512WA

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Compound Name	Spike Level ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	1.00	0.887	0.914	88.7	91.4	53-134	3.0	32
2,4,5-TP	1.00	0.840	0.848	84.0	84.8	60-118	0.95	24
2,4-D	1.00	1.06	1.10	106	110	44-155	3.7	15
Dicamba	1.00	0.933	0.962	93.3	96.2	48-102	3.1	24
Diclorprop (2,4-DP)	1.00	0.895	0.911	89.5	91.1	37-146	1.8	18
Dinoseb (DNBP)	1.00	0.838	0.843	83.8	84.3	73-173	0.59	31
<hr/>								
Surrogate: 2,4-DCAA	3.00	2.79	2.82	93.0	94.0	61-120		
<hr/>								

Comments: _____

Primary	SPK	DUP
Extraction Date :	5/12/99	5/12/99
Analysis Date :	5/18/99	5/18/99
Instrument :	ECD01	ECD01
Run :	45	46
Analyst :	KW	

Matrix Spike Recovery
EPA 8151 Herbicides

APPL ID 990512W-78767 MS - 16620
Batch ID: S8151-990512WA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Compound Name	Spike Level ug/L	Matrix Result ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2,4,5-T	1.17	ND	0.889	76.0	53-134
2,4,5-TP	1.17	ND	0.832	71.1	60-118
2,4-D	1.17	ND	1.47	126	44-155
Dicamba	1.17	ND	1.27	109 #	48-102
Dichlorprop (2,4-CP)	1.17	ND	0.907	77.5	37-146
Dinoseb (DNBP)	1.17	ND	0.786	67.2 #	73-173
Surrogate: 2,4-DCAA	3.53	NA	2.82	79.9	61-120

= Recovery is outside QC limits.

Comments: _____

Primary	SPK
Extraction Date :	5/12/99
Analysis Date :	5/18/99
Instrument :	ECD01
Run :	47
Analyst :	KW

Matrix Spike Recovery
EPA 8151 Herbicides

APPL ID 990512W-78767 MS - 16620
Batch ID: S8151-990512WA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Compound Name	Spike Level ug/L	Matrix Result ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2,4,5-T	1.17	ND	0.792	67.7	53-134
2,4,5-TP	1.17	ND	0.766	65.5	60-118
2,4-D	1.17	ND	1.38	118	44-155
Dicamba	1.17	ND	1.20	103 #	48-102
Dichlorprop (2,4-DP)	1.17	ND	0.861	73.6	37-146
Dinoseb (DNBP)	1.17	ND	0.732	62.6 #	73-173
Surrogate: 2,4-DCAA	3.53	NA	2.65	75.1	61-120

= Recovery is outside QC limits.

Comments:

<u>Primary</u>	<u>SPK</u>
Extraction Date :	5/12/99
Analysis Date :	5/19/99
Instrument :	ECD01
Run :	89
Analyst :	KW

Method Blank
EPA 8151 HERBICIDE SOIL

Blank Name/QCG: 990517S - 16689
Batch ID: \$8151S-990517SA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	2,4-D	Not detected	200	ug/kg	5/17/99	5/20/99
BLANK	Dalapon	Not detected	2000	ug/kg	5/17/99	5/20/99
BLANK	2,4-DB	Not detected	400	ug/kg	5/17/99	5/20/99
BLANK	Dicamba	Not detected	40	ug/kg	5/17/99	5/20/99
BLANK	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/17/99	5/20/99
BLANK	Dinoseb (DNBP)	Not detected	100	ug/kg	5/17/99	5/20/99
BLANK	MCPA	Not detected	40000	ug/kg	5/17/99	5/20/99
BLANK	MCPP	Not detected	40000	ug/kg	5/17/99	5/20/99
BLANK	2,4,5-T	Not detected	40	ug/kg	5/17/99	5/20/99
BLANK	2,4,5-TP	Not detected	40	ug/kg	5/17/99	5/20/99
BLANK	Surrogate recovery	109	93-141	%	5/17/99	5/20/99

Run #: 95
Instrument: ECD01
Sequence: 990517
Initials: KW

Printed: 5/24/99 10:15:21 AM

Laboratory Control Spike Recoveries

EPA 8151 HERBICIDE SOIL

APPL ID 990517S-78897 LCS/LCSD - 16689

Batch ID: \$8151S-990517SA

APPL Inc.

4203 West Swift Avenue

Fresno, CA 93722

Compound Name	Spike Level ug/kg	SPK Result ug/kg	DUP Result ug/kg	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	200	204	211	102	106	77-148	3.4	27
2,4,5-TP	200	194	198	97.0	99.0	87-149	2.0	27
2,4-D	200	234	243	117	122	90-181	3.8	27
Dicamba	200	204	207	102	104	63-149	1.5	31
Dichlorprop (2,4-DP)	200	206	210	103	105	91-183	1.9	37
Dinoseb (DNBP)	200	204	209	102	105	71-167	2.4	NE
Surrogate recovery	600	663	661	111	110	93-141		

NE = Not established.

Comments:

Primary	SPK	DUP
Extraction Date :	5/17/99	5/17/99
Analysis Date :	5/20/99	5/20/99
Instrument :	ECD01	ECD01
Run :	96	97
Analyst :	KW	

Matrix Spike Recoveries
EPA 8151 HERBICIDE SOIL

APPL ID 990517S-78897 MS/MSD - 16689

Batch ID: S8151S-990517SA

APPL Inc.

4203 West Swift Avenue

Fresno, CA 93722

Compound Name	Spike Level ug/kg	Matrix Result ug/kg	SPK Result ug/kg	DUP Result ug/kg	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	200	ND	205	183	103	91.5	77-148	11.3	27
2,4,5-TP	200	ND	187	167	93.5	83.5 #	87-149	11.3	27
2,4-D	200	ND	252	231	126	116	90-181	8.7	27
Dicamba	200	ND	233	216	117	108	63-149	7.6	31
Dichlorprop (2,4-DP)	200	ND	213	194	107	97.0	91-183	9.3	37
Dinoseb (DNBP)	200	ND	196	174	98.0	87.0	71-167	11.9	NE
Surrogate recovery	600	NA	714	660	119	110	93-141		

= Recovery is outside QC limits.

NE = Not established.

Comments:

Primary	SPK	DUP
Extraction Date :	5/17/99	5/17/99
Analysis Date :	5/20/99	5/20/99
Instrument :	ECD01	ECD01
Run :	101	102
Analyst :	KW	

CHAIN OF CUSTODY FORM

Quote # _____ Page 1 of 1

Client Name/Address: Del Mar Analytical 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 Phone: (818) 779-1844			Project/PO Number: COTTON LABORATORY 00000000			Analysis Required														
Project Manager: John H. ...			Phone Number: 602 244 1012			VOL STATE	SOLID STATE	METALS (PERMANENT)	METALS (VOLATILE)	TOXIC	HEAVY METALS	TRACE METALS	ANIONIC METALS	CATIONIC METALS	ORGANIC METALS	RESIDUES	UNIDENTIFIED	PERMANENT RESIDUES	VOLATILE RESIDUES	SPECIAL INSTRUCTIONS
Sampler: John H. ...			Fax Number: 602 244 1280																	
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives															
...	AQ	...	1	...	...	1														
DT-B11 (C/L) (S/L) (T)	AQ	...	10	5/7/77	...	2														
DT-B11 (C/L) (S/L) (T)	AQ	...	10	5/7/77	...	2														
DT-B11 (S/L) (S/L) (T)	AQ	...	2	5/7/77	...	1														
DT-B11 (S/L) (S/L) (T)	AQ	...	2	5/7/77	...	1														
DT-B11 (S/L) (S/L) (T)	AQ	...	2	5/7/77	...	1														
DT-B11 (S/L) (S/L) (T)	AQ	...	2	5/7/77	...	1														
DT-B11 (S/L) (S/L) (T)	AQ	...	2	5/7/77	...	1														
Relinquished By: John H. ...			Date /Time: 5/7/77			Received by: John H. ...			Date /Time: 5/7/77			Turnaround Time: (Check) same day _____ 72 hours _____ 24 hours _____ 5 days _____ 48 hours _____ normal _____								
Relinquished By: John H. ...			Date /Time: 5/7/77			Received by: John H. ...			Date /Time: 5/7/77			Sample Integrity: (Check) intact _____ on ice _____								
Relinquished By: John H. ...			Date /Time: 5/7/77			Received in Lab by: John H. ...			Date /Time: 5/7/77											

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Report Number: PIE00368

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 10-12, 1999
 Analyzed: May 10-19, 1999
 Revised: Jun 2, 1999

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PIE00368	Trip Blank	Water	8260B
PIE00369	QST-B16-(GW/80) -5-7-99	Water	8260B, 8270, 8081A, 8082, 200.7, 245.1, 8141A & 8151

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: Method 8260B exceeded QA/QC acceptance limits. See Corrective Action Report. All other analyses met method criteria.

OBSERVATIONS: No significant observations were made.

SUBCONTRACTED: The 8141A & 8151 analysis was performed at APPL. Results are attached.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1229
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 305, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B16-(GW/80)-5-7-99
 Lab Number: PIE00369

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 21, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)		
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	68%
Decachlorobiphenyl (30-130).....	43%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00368.QST <2 of 12>



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C 11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 3830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B16-(GW/80)-5-7-99
 Lab Number: PIE00369

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 21, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	46%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite H05, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, Trip Blank
 Lab Number: PIE00368

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 21, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene..	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane.....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	91%
Toluene-d8 (75-140).....	91%
4-Bromofluorobenzene (75-135).....	90%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B16-(GW/80)-5-7-99
 Lab Number: PIE00369

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 21, 1999

2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Culton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 18525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 4484 Chesapeake Dr., Suite 405, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 7830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	4.6	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane...	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane...	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	3.6	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160)....	90%
Toluene-d8 (75-140).....	92%
4-Bromofluorobenzene (75-135)....	90%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00368.QST <5 of 12>

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, QST-B16-(GW/80)-5-7-99
 Lab Number: PIE00369

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 21, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	16
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	60%
Phenol-d6 (40-115).....	57%
2,4,6-Tribromophenol (40-140).....	81%
Nitrobenzene-d5 (35-120).....	47%
2-Fluorobiphenyl (30-150).....	62%
Terphenyl-d14 (45-150).....	80%

Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1028
 1014 E. Coolby Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 6525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1847
 4484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B16-(GW/80)-5-7-99
 Lab Number: PIE00369

Sampled: May 7, 1999
 Received: May 7, 1999
 Extracted: May 10, 1999
 Analyzed: May 10-19, 1999
 Reported: May 21, 1999

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/10/99	05/19/99
Arsenic.....	EPA 200.7	0.050	0.24	05/10/99	05/11/99
Beryllium.....	EPA 200.7	0.10*	N.D.	05/10/99	05/19/99
Cadmium.....	EPA 200.7	0.0050	0.016	05/10/99	05/11/99
Chromium.....	EPA 200.7	0.010	0.40	05/10/99	05/11/99
Copper.....	EPA 200.7	0.020	0.75	05/10/99	05/11/99
Lead.....	EPA 200.7	0.050	0.17	05/10/99	05/11/99
Mercury.....	EPA 245.1	0.00020	0.00057	05/10/99	05/10/99
Nickel.....	EPA 200.7	0.050	0.51	05/10/99	05/11/99
Selenium.....	EPA 200.7	0.060	N.D.	05/10/99	05/11/99
Silver.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Thallium.....	EPA 200.7	0.050	0.053	05/10/99	05/11/99
Zinc.....	EPA 200.7	0.050	0.40	05/10/99	05/11/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 20.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 21, 1999
 Matrix: Water

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aldrin.....	0.10	N.D.
alpha-BHC.....	0.10	N.D.
beta-BHC.....	0.10	N.D.
delta-BHC.....	0.25	N.D.
gamma-BHC (Lindane).....	0.10	N.D.
Chlordane.....	2.0	N.D.
4,4'-DDD.....	0.10	N.D.
4,4'-DDE.....	0.10	N.D.
4,4'-DDT.....	0.10	N.D.
Dieldrin.....	0.10	N.D.
Endosulfan I.....	0.10	N.D.
Endosulfan II.....	0.10	N.D.
Endosulfan sulfate.....	0.50	N.D.
Endrin.....	0.10	N.D.
Endrin aldehyde.....	0.10	N.D.
Heptachlor.....	0.10	N.D.
Heptachlor epoxide.....	0.10	N.D.
Methoxychlor.....	0.10	N.D.
Toxaphene.....	4.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	84%
Decachlorobiphenyl (30-130).....	80%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 21, 1999
 Matrix: Water

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Tetrachloro-m-xylene (30-130).....	94%
Decachlorobiphenyl (30-130).....	85%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

3852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 21, 1999
 Matrix: Water

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane.....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

*See Corrective Action Report.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	73%
Toluene-d8 (75-140).....	75%
4-Bromofluorobenzene (75-135).....	73%*

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00368.QST <10 of 12>

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 21, 1999
 Matrix: Water

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-100).....	60%
Phenol-d6 (40-115).....	65%
2,4,6-Tribromophenol (40-140).....	77%
Nitrobenzene-d5 (35-120).....	54%
2-Fluorobiphenyl (30-150).....	67%
Terphenyl-d14 (45-150).....	82%

Robyn Rice
 Project Manager

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 10, 1999
 Analyzed: May 10-19, 1999
 Reported: May 21, 1999
 Matrix: Water

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/10/99	05/19/99
Arsenic.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/10/99	05/19/99
Cadmium.....	EPA 200.7	0.0050	N.D.	05/10/99	05/11/99
Chromium.....	EPA 200.7	0.010	N.D.	05/10/99	05/11/99
Copper.....	EPA 200.7	0.020	N.D.	05/10/99	05/11/99
Lead.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Mercury.....	EPA 245.1	0.00020	N.D.	05/10/99	05/10/99
Nickel.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Selenium.....	EPA 200.7	0.060	N.D.	05/10/99	05/11/99
Silver.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Thallium.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99
Zinc.....	EPA 200.7	0.050	N.D.	05/10/99	05/11/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 4484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785 0851

MS/MSD DATA REPORT

EPA Method: 8081
 Matrix: Water
 Instrument: GC

Date: 05/12/99
 Sample #: LCS/LCSD*
 Batch #: IE11PE1W

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
DDE	0	0.5	0.388	0.416	78%	83%	7%	40	55-125
DDD	0	0.5	0.410	0.442	82%	88%	8%	20	60-130
DDT	0	0.5	0.430	0.469	86%	94%	9%	20	55-145

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) Note: This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

GC CALIBRATION CHECK CRITERIA

Method: 8081A
 QC Batch: E12 #24

Associated Samples: PIE00368

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
B-BHC	2	74
D-BHC	1	125
Endrin Ketone	1	117

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result. All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result. An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



MS/MSD DATA REPORT

EPA Method: 8082 (PCB's only)
 Matrix: Water
 Instrument: GC

Date: 5/12/99
 Sample #: LCS/LCSD*
 Batch #: IE11PE1W

Acceptance Limits

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
AR 1016	0	4.0	3.28	3.33	82%	83%	2%	≤ 50	60-140%
AR 1260	0	4.0	2.95	3.10	74%	78%	5%	≤ 50	60-140%

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



MS/MSD DATA REPORT

EPA Method: 8260B
 Matrix: Water
 Instrument: GCMS

Date: 05/11/99
 Sample #: PIE00264
 Batch #: IE11011W

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Vinyl Chloride	59.7	25	74.7	70.6	60%	44%	6%	≤ 20	45-170%
1,1-Dichloroethene	0.0	25	27.5	27.6	110%	110%	0.4%	≤ 20	70-130%
1,1-Dichloroethane	0.0	25	24.3	24.3	97%	97%	0.0%	≤ 20	80-135%
Chloroform	0.0	25	25.0	25.1	100%	100%	0.4%	≤ 20	80-135%
1,2-Dichloroethane	0.0	25	21.5	21.6	86%	86%	0.5%	≤ 20	80-130%
Benzene	0.0	25	29.0	28.9	116%	116%	0.3%	≤ 20	75-135%
Trichloroethene	2.8	25	26.2	27.4	94%	98%	4.5%	≤ 20	75-130%
Toluene	0.0	25	25.4	26.4	102%	106%	3.9%	≤ 20	75-135%
Tetrachloroethene	0.0	25	23.4	24.5	94%	98%	4.6%	≤ 20	70-135%
Chlorobenzene	4.5	25	28.2	28.6	95%	96%	1.4%	≤ 20	75-125%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



LABORATORY CONTROL SAMPLE

EPA METHOD: 8260B

BATCH: IE11011W
DATE: 5/11/99

Analyte	St	R1	PR	QC Limits
	ppb	ppb	%	%
Vinyl Chloride	25	25.7	103%	25-200
1,1-Dichloroethene	25	29.4	118%	55-165
1,1-Dichloroethane	25	24.5	98%	65-155
Chloroform	25	25.5	102%	65-150
1,2-Dichloroethane	25	21.4	86%	65-155
Benzene	25	29.4	118%	60-155
Trichloroethene	25	24.6	98%	60-150
Toluene	25	27.2	109%	65-155
1,2-Dichloroethene	25	24.2	97%	60-155
Chlorobenzene	25	24.3	97%	65-145

Definition of Terms:

- St.** Concentration standard added to sample
R1. Standard Result
PR. Percent Recovery



MS/MSD DATA REPORT

EPA Method: 8270
 Matrix: Water
 Instrument: GCMS

Date: 05/14/99
 Sample #: LCS/LCSD*
 Batch #: IE12SE1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Phenol	0.1	50.0	34.0	33.0	68%	66%	3%	15	40-110
2-Chlorophenol	0.0	50.0	34.0	33.0	68%	66%	3%	15	40-110
1,4-Dichlorobenzene	0.0	50.0	30.0	29.0	60%	58%	3%	15	35-110
N-Nitroso-di-n-propylamine	0.0	50.0	36.0	36.0	72%	72%	0%	20	45-120
1,2,4-Trichlorobenzene	0.0	50.0	31.0	30.0	62%	60%	3%	15	44-110
Chloro-3-methylphenol	0.0	50.0	40.0	38.0	80%	76%	5%	20	50-115
Acenaphthene	0.0	50.0	37.0	33.0	74%	66%	11%	15	50-115
2,4-Dinitrotoluene	0.0	50.0	42.0	40.0	84%	80%	5%	15	55-120
4-Nitrophenol	0.0	50.0	47.0	43.0	94%	86%	9%	15	45-120
Pentachlorophenol	0.0	50.0	48.0	44.0	96%	88%	9%	20	50-125
Pyrene	0.0	50.0	43.0	41.0	86%	82%	5%	25	70-120

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.



MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/21/99
 Sample #: PIE00214

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony	0	1.0	1.03	1.04	103%	104%	1.0%	104%
Beryllium	0	1.0	1.01	1.04	101%	104%	2.9%	103%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... RPD: $< \text{or} = 20\%$
 MS/MSD: 70-130%
- QA/QC CRITERIA: All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

EPA Method: 245.1
 Matrix: Water
 Instrument: N/A

Date: 05/10/99
 Sample #: PIE00240
 Batch #: IE10HG1W

Analyte							<u>Acceptance Limits</u>		
	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>PR1/PR2</u>	
	ppm	ppm	ppm	ppm	%	%	%	%	
Mercury	0	0.00500	0.00548	0.00539	110%	108%	1.7%	≤ 20	70-130%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

- QA/QC Criteria..... All QA/QC was within acceptance limit.



CORRECTIVE ACTION REPORT

Department: GC/MS Method: 8260B
Date: 05/11/99 Matrix: Water
Associated Samples: PIE00194, PIE00263-266, PIE00321-323, PIE00348-349
PIE00368-369, PIE00393-400

Identification and Definition of Problem:

The Method Blank analyzed in QC batch IE11011W had low recovery for surrogate 4-Bromofluorobenzene. 73% recovery is below the current control limits.

Determination of the Cause of the Problem:

Current Del Mar Analytical control limits are 75-130% for this surrogate. No cause could be determined for this one low recovery.

Corrective Action:

No further corrective action was taken because all associated sample recoveries were within control limits. Subsequent Method Blank surrogate recoveries were acceptable.

June Schaper: June Schaper Date: 6/1/99
Quality Assurance Manager



May 20, 1999

Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, Arizona 85044
Attn: Robyn Rice

Report of Laboratory Results: ARF number: 30244

Dear Ms. Rice:

One water sample for Project Number 'PIE00368.QST' was received May 11, 1999, in good condition. Written results are being provided on this May 20, 1999, for the requested analyses. All holding times were met.

In the MS, Dinoseb and Dicamba were recovered slightly beyond the control limits. Reinjection of the MS yielded similar results. No other unusual problems or complications were encountered with this sample set.

Sample Table

Sample Description	Del Mar ID	APPL Inc. ID	Sample Date
Water	PIE00369	78782w	05/07/99

If you have any questions or require further information, please contact us at your convenience. Thank you for choosing APPL, Inc.

Sincerely,

Mike Ray, Laboratory Director
APPL, Inc.

MR/mr
Enclosure
cc: File

EPA 8141

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00368.QST

Sample ID: PIE00369

Sample Collection Date: 5/7/99

ARF: 30244

APPL ID AP78782

QCG: \$8141W-990513A-16601

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	5.0	ug/L	5/13/99	5/18/99
EPA 8141	Bolstar	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Chlorpyrifos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Coumaphos	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Def	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Demeton-s	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Diazinon	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Dichlorvos	Not detected	1.0	ug/L	5/13/99	5/18/99
EPA 8141	Dimethoate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Disulfoton	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	EPN	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ethion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ethoprop	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Fensulfotion	Not detected	2.5	ug/L	5/13/99	5/18/99
EPA 8141	Fenthion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Malathion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Merphos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Mevinphos	Not detected	3.5	ug/L	5/13/99	5/18/99
EPA 8141	Naled	Not detected	2.5	ug/L	5/13/99	5/18/99
EPA 8141	Parathion, ethyl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Parathion, methyl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Phorate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Prowl	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Ronnel	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Stirophos	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Sulfotep	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Tepp	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Tokuthion	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Trichloronate	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Trifluralin	Not detected	0.50	ug/L	5/13/99	5/18/99
EPA 8141	Surrogate: Tributylphosphate	82.2	60-150	%	5/13/99	5/18/99
EPA 8141	Surrogate: Triphenylphosphate	75.1 #	76-140	%	5/13/99	5/18/99

= Recovery is outside QC limits.

Run #: 517045
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

Printed: 5/18/99 2:43:47 PM

EPA 8151 Herbicides

Del Mar Analytical
830 South 51st. St., Ste B-120
Phoenix, AZ 85044

Attn: Robyn Rice
Project: PIE00368.QST
Sample ID: PIE00369
Sample Collection Date: 5/7/99

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

ARF: 30244
APPL ID AP78782
QCG: \$8151-990512WA-16620

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	0.50	ug/L	5/12/99	5/19/99
EPA 8151	Dalapon	Not detected	1.0	ug/L	5/12/99	5/19/99
EPA 8151	2,4-DB	Not detected	1.0	ug/L	5/12/99	5/19/99
EPA 8151	Dicamba	Not detected	0.10	ug/L	5/12/99	5/19/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/12/99	5/19/99
EPA 8151	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/12/99	5/19/99
EPA 8151	MCPA	Not detected	100	ug/L	5/12/99	5/19/99
EPA 8151	MCPP	Not detected	100	ug/L	5/12/99	5/19/99
EPA 8151	2,4,5-T	Not detected	0.10	ug/L	5/12/99	5/19/99
EPA 8151	2,4,5-TP	Not detected	0.10	ug/L	5/12/99	5/19/99
EPA 8151	Surrogate Recovery	91.1	61-120	%	5/12/99	5/19/99

Run #: 55
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Printed: 5/19/99 1:21:37 PM

Method Blank

EPA 8141

Blank Name/QCG: 990513W - 16601

Batch ID: \$8141W-990513A

APPL Inc.

4203 West Swift Avenue

Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	Azinphosmethyl	Not detected	5.0	ug/L	5/13/99	5/18/99
BLANK	Bolstar	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Chlorpyrifos	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Coumaphos	Not detected	1.0	ug/L	5/13/99	5/18/99
BLANK	Def	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Demeton-s	Not detected	1.0	ug/L	5/13/99	5/18/99
BLANK	Diazinon	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Dichlorvos	Not detected	1.0	ug/L	5/13/99	5/18/99
BLANK	Dimethoate	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Disulfoton	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	EPN	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Ethion	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Ethoprop	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Fensulfothion	Not detected	2.5	ug/L	5/13/99	5/18/99
BLANK	Fenthion	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Malathion	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Merphos	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Mevinphos	Not detected	3.5	ug/L	5/13/99	5/18/99
BLANK	Naled	Not detected	2.5	ug/L	5/13/99	5/18/99
BLANK	Parathion, ethyl	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Parathion, methyl	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Phorate	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Prowl	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Ronnel	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Stirophos	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Sulfotep	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Tepp	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Tokuthion	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Trichloronate	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Trifluralin	Not detected	0.50	ug/L	5/13/99	5/18/99
BLANK	Surrogate: Tributylphosphate	82.8	60-150	%	5/13/99	5/18/99
BLANK	Surrogate: Triphenylphosphate	76.2	76-140	%	5/13/99	5/18/99

Run #: 517027
 Instrument: NPD03
 Sequence: 990517
 Initials: FML

Printed: 5/18/99 12:04:05 PM

Matrix / Control Spike Recoveries

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: **990513AW LCS/LCSD**
Date/Initials: 5/18/99 FML
Extraction Date: 5/13/99
Matrix Type: WATER
Units: ug/L

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery	%RPD (See below)
Phorate	2.50	0.00	1.65	66.2	1.76	70.6	6.4
Diazinon	2.50	0.00	2.51	101	2.62	105	4.2
Disulfoton	2.50	0.00	1.79	71.7	1.89	75.8	5.5
Methyl parathion	2.50	0.00	1.97	78.6	2.02	80.9	2.9
Stirophos	2.50	0.00	2.12	84.9	2.21	88.3	3.9
Ethion	2.50	0.00	1.74	69.6	1.81	72.4	4.0

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery
Tributyl phosphate	5.00	*****	4.12	82.4	4.27	85.5
Triphenyl phosphat	5.00	*****	3.88	77.7	4.17	83.4

	Primary Column		Secondary Column	
	Spike	Spk Dup	Spike	Spk Dup
Analysis Date:	5/18/99	5/18/99		
Analysis Time:	3:34 AM	4:11 AM		
Instrument:	NPD03B	NPD03B		
Column:	DB-5	DB-5		
Sample/Vial #:	28	29		
Extraction Ratio:	10/1000	10/1000		
Dilution Factor:	1	1		

Comments:

	Soil	Water	Soil RPD	Water RPD
Phorate	26-98	22-96	21	24
Diazinon	61-139	57-130	24	21
Disulfoton	14-131	47-117	26	22
Meth Parathion	63-153	55-164	19	24
Stirophos	58-140	68-128	21	25
Ethion	66-131	65-134	36	20
Tributyl phosphate	51-154	60-150	NA	NA
Triphenyl phosphate	63-151	76-140	NA	NA

MATIRX SPIKE

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: 78753 MS
Date/Initials: 5/19/99 FML
Extraction Date: 5/13/99
Matrix Type: Water
Units: ug/L

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Phorate	2.50	*****	1.81	72.3
Diazinon	2.50	*****	2.53	101
Disulfoton	2.50	*****	2.09	83.4
Methyl parathion	2.50	*****	2.21	88.2
Stirophos	2.50	*****	2.39	95.6
Ethion	2.50	*****	1.82	72.7

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Tributyl phosphate	5.00	*****	4.24	84.8
Triphenyl phosphate	5.00	*****	4.20	84.0

	Prim Col	Sec Col
	Spike	Spike
Analysis Date:	5/18/99	
Analysis Time:	7:08 PM	
Instrument:	NPD03B	
Column:	DB-5	
Sample/Vial #:	53	
Extraction Ratio:	10/1000	
Dilution Factor:	1	

Comments:

	Soil	Water
Phorate	26-98	22-96
Diazinon	61-139	57-130
Disulfoton	14-131	47-117
Meth Parathion	63-153	55-164
Stirophos	58-140	68-128
Ethion	66-131	65-134
Tributyl phosphate	51-154	60-150
Triphenyl phosphate	63-151	76-140

Method Blank
EPA 8151 Herbicides

Blank Name/QCG: 990512W - 16620
Batch ID: S8151-990512WA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	2,4-D	Not detected	0.50	ug/L	5/12/99	5/18/99
BLANK	Dalapon	Not detected	1.0	ug/L	5/12/99	5/18/99
BLANK	2,4-DB	Not detected	1.0	ug/L	5/12/99	5/18/99
BLANK	Dicamba	Not detected	0.10	ug/L	5/12/99	5/18/99
BLANK	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/12/99	5/18/99
BLANK	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/12/99	5/18/99
BLANK	MCPA	Not detected	100	ug/L	5/12/99	5/18/99
BLANK	MCPP	Not detected	100	ug/L	5/12/99	5/18/99
BLANK	2,4,5-T	Not detected	0.10	ug/L	5/12/99	5/18/99
BLANK	2,4,5-TP	Not detected	0.10	ug/L	5/12/99	5/18/99
BLANK	Surrogate recovery	89.5	51-120	%	5/12/99	5/18/99

Run #: 44
Instrument: ECD01
Sequence: 990517
Initials: KW

Printed: 5/19/99 1:21:59 PM

Laboratory Control Spike Recoveries
EPA 8151 Herbicides

APPL ID 990512W-78767 LCS/LCSD - 16620
 Batch ID: S8151-990512WA

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Compound Name	Spike Level ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	1.00	0.887	0.914	88.7	91.4	53-134	3.0	32
2,4,5-TP	1.00	0.840	0.848	84.0	84.8	60-118	0.95	24
2,4-D	1.00	1.06	1.10	106	110	44-155	3.7	15
Dicamba	1.00	0.933	0.962	93.3	96.2	48-102	3.1	24
Dichlorprop (2,4-DP)	1.00	0.895	0.911	89.5	91.1	37-146	1.8	18
Dinoseb (DNBP)	1.00	0.838	0.843	83.8	84.3	73-173	0.59	31

Surrogate: 2,4-DCAA	3.00	2.79	2.82	93.0	94.0	61-120		

Comments: _____

Primary	SPK	DUP
Extraction Date :	5/12/99	5/12/99
Analysis Date :	5/18/99	5/18/99
Instrument :	ECD01	ECD01
Run :	45	46
Analyst :	KW	

Matrix Spike Recovery

EPA 8151 Herbicides

APPL ID 990512W-78767 MS - 16620
 Batch ID: S8151-990512WA

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Compound Name	Spike Level ug/L	Matrix Result ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2,4,5-T	1.17	ND	0.889	76.0	53-134
2,4,5-TP	1.17	ND	0.832	71.1	60-118
2,4-D	1.17	ND	1.47	126	44-155
Dicamba	1.17	ND	1.27	109 #	48-102
Dichloroprop (2,4-DP)	1.17	ND	0.907	77.5	37-146
Dinoseb (DNBP)	1.17	ND	0.786	67.2 #	73-173
Surrogate: 2,4-DCAA	3.53	NA	2.82	79.9	61-120

= Recovery is outside QC limits.

Comments: _____

Primary	SPK
Extraction Date :	5/12/99
Analysis Date :	5/18/99
Instrument :	ECD01
Run :	47
Analyst :	KW

Matrix Spike Recovery

EPA 8151 Herbicides

APPL ID 990512W-78767 MS - 16620

Batch ID: S8151-990512WA

APPL Inc.

4203 West Swift Avenue

Fresno, CA 93722

Compound Name	Spike Level ug/L	Matrix Result ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2,4,5-T	1.17	ND	0.792	67.7	53-134
2,4,5-TP	1.17	ND	0.766	65.5	60-118
2,4-D	1.17	ND	1.38	118	44-155
Dicamba	1.17	ND	1.20	103 #	48-102
Dichlorprop (2,4-DP)	1.17	ND	0.861	73.6	37-146
Dinoseb (DNBP)	1.17	ND	0.732	62.6 #	73-173
Surrogate: 2,4-DCAA	3.53	NA	2.65	75.1	61-120

= Recovery is outside QC limits.

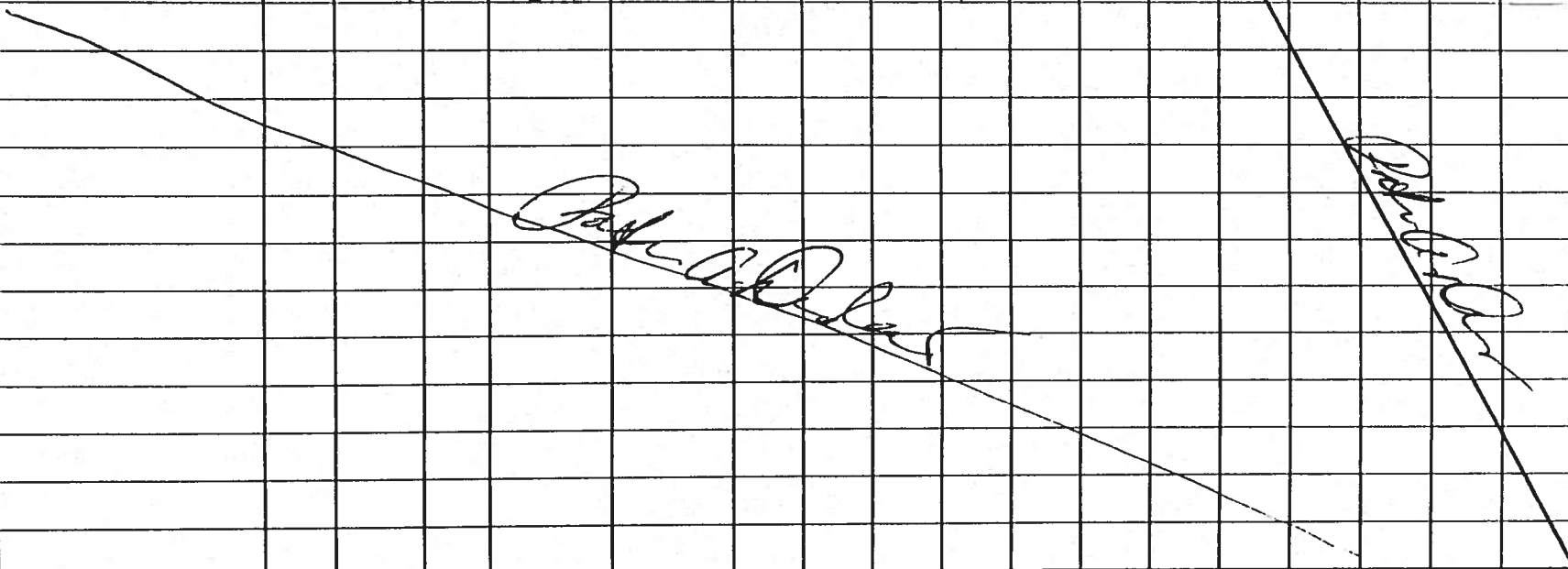
Comments: _____

Primary	SPK
Extraction Date :	5/12/99
Analysis Date :	5/19/99
Instrument :	ECD01
Run :	89
Analyst :	KW

Printed: 5/20/99 9:18:06 AM

CHAIN OF CUSTODY FORM

Quote # _____ Page 1 of 1

Client Name/Address: QST ENVIRONMENTAL INC. 426 N. 44TH ST., SUITE 110 PHOENIX, AZ			Project/PO Number: ESTES LANDFILL 669 9030			Analysis Required										Special Instructions									
Project Manager: JOHN MEIER			Phone Number: (602) 244-1192			VOC 8260	SVOC 8270	METALS / MERCURY 6010 / 7174	PCB 8082	ORGANOCHLORINE PESTICIDES 8081	ORGANO PHOSPHORUS PESTICIDES 8141	CHLORINATED PESTICIDES 8151													
Sampler: PATRICIA DROBAT SEEF MARTIN			Fax Number: (602) 244-9280																						
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives																				
TRIP BLANK	AQ	VOA	1	—	HCl	1	/	/	/	/	/	/	/	/											CHILL 40C
T-B16-(6/1/90)-5-7-99	AQ	VARIABLES	13	5-7-99 16:25	VARIABLES	X	X	X	X	X	X	X	X												
																									
Relinquished By: <i>John C. Wood</i>			Date / Time: 5-7-99 1704			Received by: <i>John C. Wood</i>			Date / Time: 5/7/99 1704			Turnaround Time: (Check)													
Relinquished By: <i>John C. Wood</i>			Date / Time: 5/7/99 1730			Received by: <i>John C. Wood</i>			Date / Time: 5/7/99 1730			same day _____ 72 hours _____ 24 hours _____ 5 days _____ 48 hours _____ normal <input checked="" type="checkbox"/>													
Relinquished By: <i>John C. Wood</i>			Date / Time: 5/7/99 1730			Received in Lab by: <i>Jaime Wood</i>			Date / Time: 5/7/99 1730			Sample Integrity: (Check)													
Relinquished By: <i>John C. Wood</i>			Date / Time: 5/7/99 1730			Received in Lab by: <i>Jaime Wood</i>			Date / Time: 5/7/99 1730			intact <input checked="" type="checkbox"/> on ice <input checked="" type="checkbox"/>													

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.



MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/11/99
 Sample #: PIE00214

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Arsenic	0	1.0	0.992	1.02	99%	102%	2.8%	101%
Cadmium	0	1.0	0.891	0.911	89%	91%	2.2%	90%
Chromium	0	1.0	0.882	0.898	88%	90%	1.8%	89%
Copper	0	1.0	0.964	0.990	96%	99%	2.7%	98%
Lead	0	1.0	0.877	0.887	88%	89%	1.1%	88%
Nickel	0	1.0	0.854	0.873	85%	87%	2.2%	86%
Selenium	0	1.0	0.882	0.901	88%	90%	2.1%	89%
Silver	0	0.05	0.0507	0.0540	101%	108%	6.3%	105%
Thallium	0	1.0	0.809	0.822	81%	82%	1.6%	82%
Zinc	0	1.0	0.997	1.02	100%	102%	2.3%	101%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1) / SP) X 100
- PR2..... Percent Recovery of MSD; ((MSD-R1) / SP) X 100
- RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100
- Acceptance Limits..... RPD: < or = 20%
- MS/MSD: 70-130%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Report Number: PIE00391

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: 5/11-6/10, 1999
 Analyzed: 5/11-6/12, 1999
 Reported: 5/27-6/14, 1999

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PIE00391	QST-B19-(S/40) -5-10-99	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00392	QST-B19-(S/70) -5-10-99	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00393	Field Blank	Water	8260B
PIE00394	QST-B18(GW/85) (5-10-99)	Water	8260B, 8270, 200.7, 245.1, 8081A, 8082, 8141A & 8151
PIE00395	QST-B18(S/40) (5-10-99)	Soil	8260B, 8270, 6010B, 7471A, 8081A, 8082, 8141A & 8151
PIE00396	QST-B19(GW/80) (5-10-99)	Water	8260B, 8270, 200.7, 245.1, 8081A, 8082, 8141A & 8151
PIE00397	QST-B18(S/74) (5-10-99)	Soil	8260B
PIE00400	Field Blank/B19	Water	8260B

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: Method 8260B QA/QC exceeded acceptance limits. See Corrective Action Report. All other analyses met method criteria.

OBSERVATIONS: No significant observations were made.

SUBCONTRACTED: The 8141A & 8151 analysis was performed at APPL. Results are attached.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B19-(S/40)-5-10-99
 Lab Number: PIE00391

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 13, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)			µg/Kg (ppb)
Aldrin.....	5.0	.....	N.D.
alpha-BHC.....	5.0	.....	N.D.
beta-BHC.....	5.0	.....	N.D.
delta-BHC.....	10	.....	N.D.
gamma-BHC (Lindane).....	5.0	.....	N.D.
Chlordane.....	100	.....	N.D.
4,4'-DDD.....	5.0	.....	N.D.
4,4'-DDE.....	5.0	.....	N.D.
4,4'-DDT.....	5.0	.....	N.D.
Dieldrin.....	5.0	.....	N.D.
Endosulfan I.....	5.0	.....	N.D.
Endosulfan II.....	5.0	.....	N.D.
Endosulfan sulfate.....	20	.....	N.D.
Endrin.....	5.0	.....	N.D.
Endrin aldehyde.....	5.0	.....	N.D.
Heptachlor.....	5.0	.....	N.D.
Heptachlor epoxide.....	5.0	.....	N.D.
Methoxychlor.....	5.0	.....	N.D.
Toxaphene.....	200	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	70%
Decachlorobiphenyl (30-130).....	78%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 6 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B19-(S/70)-5-10-99
 Lab Number: PIE00392

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 13, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aldrin.....	5.0	N.D.
alpha-BHC.....	5.0	N.D.
beta-BHC.....	5.0	N.D.
delta-BHC.....	10	N.D.
gamma-BHC (Lindane).....	5.0	N.D.
Chlordane.....	100	N.D.
4,4'-DDD.....	5.0	N.D.
4,4'-DDE.....	5.0	N.D.
4,4'-DDT.....	5.0	N.D.
Dieldrin.....	5.0	N.D.
Endosulfan I.....	5.0	N.D.
Endosulfan II.....	5.0	N.D.
Endosulfan sulfate.....	20	N.D.
Endrin.....	5.0	N.D.
Endrin aldehyde.....	5.0	N.D.
Heptachlor.....	5.0	N.D.
Heptachlor epoxide.....	5.0	N.D.
Methoxychlor.....	5.0	N.D.
Toxaphene.....	200	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	67%
Decachlorobiphenyl (30-130).....	81%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, QST-B18(GW/85)(5-10-99)
 Lab Number: PIE00394

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aldrin.....	0.10	N.D.
alpha-BHC.....	0.10	N.D.
beta-BHC.....	0.10	N.D.
delta-BHC.....	0.25	N.D.
gamma-BHC (Lindane).....	0.10	N.D.
Chlordane.....	2.0	N.D.
4,4'-DDD.....	0.10	N.D.
4,4'-DDE.....	0.10	N.D.
4,4'-DDT.....	0.10	N.D.
Dieldrin.....	0.10	N.D.
Endosulfan I.....	0.10	N.D.
Endosulfan II.....	0.10	N.D.
Endosulfan sulfate.....	0.50	N.D.
Endrin.....	0.10	N.D.
Endrin aldehyde.....	0.10	N.D.
Heptachlor.....	0.10	N.D.
Heptachlor epoxide.....	0.10	N.D.
Methoxychlor.....	0.10	N.D.
Toxaphene.....	4.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	54%
Decachlorobiphenyl (30-130).....	52%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B18(S/40)(5-10-99)
 Lab Number: PIE00395

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 13, 1999
 Analyzed: May 16, 1999
 Reported: May 27, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		
Aldrin.....	10	.....	N.D.
alpha-BHC.....	10	.....	N.D.
beta-BHC.....	10	.....	N.D.
delta-BHC.....	20	.....	N.D.
gamma-BHC (Lindane).....	10	.....	N.D.
Chlordane.....	200	.....	N.D.
4,4'-DDD.....	10	.....	N.D.
4,4'-DDE.....	10	.....	12
4,4'-DDT.....	10	.....	N.D.
Dieldrin.....	10	.....	N.D.
Endosulfan I.....	10	.....	N.D.
Endosulfan II.....	10	.....	N.D.
Endosulfan sulfate.....	40	.....	N.D.
Endrin.....	10	.....	N.D.
Endrin aldehyde.....	10	.....	N.D.
Heptachlor.....	10	.....	N.D.
Heptachlor epoxide.....	10	.....	N.D.
Methoxychlor.....	10	.....	N.D.
Toxaphene.....	400	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



R.R.

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	76%
Decachlorobiphenyl (30-130).....	76%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B19(GW/80)5-10-99
 Lab Number: PIE00396

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)			µg/L (ppb)
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	68%
Decachlorobiphenyl (30-130).....	69%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B19-(S/40)-5-10-99
 Lab Number: PIE00391

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 13, 1999
 Analyzed: May 14, 1999
 Reported: May 27, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)			$\mu\text{g/Kg}$ (ppb)
Aroclor 1016.....	50	.....	N.D.(C)
Aroclor 1221.....	50	.....	N.D.
Aroclor 1232.....	50	.....	N.D.
Aroclor 1242.....	50	.....	N.D.
Aroclor 1248.....	50	.....	N.D.
Aroclor 1254.....	50	.....	N.D.
Aroclor 1260.....	50	.....	N.D.(C)

C= Continuing Calibration verification recovery was above the method control limits; Data not impacted.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	85%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11. Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B19-(S/70)-5-10-99
 Lab Number: PIE00392

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 13, 1999
 Analyzed: May 14, 1999
 Reported: May 27, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit		Sample Result
	$\mu\text{g/Kg}$ (ppb)		
Aroclor 1016.....	50	.....	N.D.(C)
Aroclor 1221.....	50	.....	N.D.
Aroclor 1232.....	50	.....	N.D.
Aroclor 1242.....	50	.....	N.D.
Aroclor 1248.....	50	.....	N.D.
Aroclor 1254.....	50	.....	N.D.
Aroclor 1260.....	50	.....	N.D.(C)

C= Continuing Calibration verification recovery was above the method control limits; Data not impacted.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	88%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, QST-B18(GW/85)(5-10-99)
 Lab Number: PIE00394

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	57%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B18(S/40)(5-10-99)
 Lab Number: PIE00395

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 13, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	250	N.D.(C)
Aroclor 1221.....	250	N.D.
Aroclor 1232.....	250	N.D.
Aroclor 1242.....	250	N.D.
Aroclor 1248.....	250	N.D.
Aroclor 1254.....	250	N.D.
Aroclor 1260.....	250	N.D.(C)

C= Continuing Calibration verification recovery was above the method control limits; Data not impacted.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):
Decachlorobiphenyl (30-130)..... Diluted out

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B19(GW/80)5-10-99
 Lab Number: PIE00396

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	72%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B19-(S/40)-5-10-99
 Lab Number: PIE00391

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 27, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	83%
Toluene-d8 (50-135).....	87%
4-Bromofluorobenzene (70-130).....	83%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B19-(S/70)-5-10-99
 Lab Number: PIE00392

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 27, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	80%
Toluene-d8 (50-135).....	83%
4-Bromofluorobenzene (70-130).....	82%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00391.QST <13 of 39>



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, Field Blank
 Lab Number: PIE00393

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 22, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone	10	13	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane	2.0	3.7	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform	2.0	3.1	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane...	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane...	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane	2.0	2.9	Toluene	2.0	16
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	90%
Toluene-d8 (75-140).....	92%
4-Bromofluorobenzene (75-135).....	87%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00391.QST <14 of 39>



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mierher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B18(GW/85)(5-10-99)
 Lab Number: PIE00394

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 22, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	5.8	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	90%
Toluene-d8 (75-140).....	93%
4-Bromofluorobenzene (75-135).....	89%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B18(S/40)(5-10-99)
 Lab Number: PIE00395

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 27, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	76%
Toluene-d8 (50-135).....	79%
4-Bromofluorobenzene (70-130).....	77%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B19(GW/80)5-10-99
 Lab Number: PIE00396

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 22, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	7.9	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	88%
Toluene-d8 (75-140).....	95%
4-Bromofluorobenzene (75-135).....	91%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B18(S/74)(5-10-99)
 Lab Number: PIE00397

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 27, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	75%
Toluene-d8 (50-135).....	79%
4-Bromofluorobenzene (70-130).....	75%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, Field Blank/B19
 Lab Number: PIE00400

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 22, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropane.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	4.1	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	3.4	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane...	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane...	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	3.2	Toluene.....	2.0	11
1,2-Dibromo-3-chloropropane.....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	91%
Toluene-d8 (50-135).....	94%
4-Bromofluorobenzene (70-130).....	89%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B19-(S/40)-5-10-99
 Lab Number: PIE00391

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 13, 1999
 Analyzed: May 14, 1999
 Reported: May 27, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)


R.R.
 Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-110).....	75%
Phenol-d6 (35-110).....	82%
2,4,6-Tribromophenol (40-110).....	110%
Nitrobenzene-d5 (30-110).....	88%
2-Fluorobiphenyl (40-110).....	83%
Terphenyl-d14 (45-110).....	91%

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B19-(S/70)-5-10-99
 Lab Number: PIE00392

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 13, 1999
 Analyzed: May 14, 1999
 Reported: May 27, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-110).....	61%
Phenol-d6 (35-110).....	74%
2,4,6-Tribromophenol (40-110).....	95%
Nitrobenzene-d5 (30-110).....	69%
2-Fluorobiphenyl (40-110).....	72%
Terphenyl-d14 (45-110).....	83%

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mierher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B18(GW/85)(5-10-99)
 Lab Number: PIE00394

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 27, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	21
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-110).....	72%
Phenol-d6 (40-115).....	78%
2,4,6-Tribromophenol (40-140).....	96%
Nitrobenzene-d5 (35-120).....	68%
2-Fluorobiphenyl (30-150).....	80%
Terphenyl-d14 (45-150).....	83%

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B18(S/40)(5-10-99)
 Lab Number: PIE00395

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 13, 1999
 Analyzed: May 14, 1999
 Reported: May 27, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-110).....	76%
Phenol-d6 (35-110).....	81%
2,4,6-Tribromophenol (40-110).....	99%
Nitrobenzene-d5 (30-110).....	80%
2-Fluorobiphenyl (40-110).....	80%
Terphenyl-d14 (45-110).....	89%

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B19(GW/80)5-10-99
 Lab Number: PIE00396

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 27, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine
 Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-110).....	58%
Phenol-d6 (40-115).....	68%
2,4,6-Tribromophenol (40-140).....	91%
Nitrobenzene-d5 (35-120).....	55%
2-Fluorobiphenyl (30-150).....	65%
Terphenyl-d14 (45-150).....	83%



Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B19-(S/40)-5-10-99
 Lab Number: PIE00391

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: 5/18-6/10, 1999
 Analyzed: 5/18-6/12, 1999
 Reported: 5/27-6/14, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/20/99	05/23/99
Arsenic.....	EPA 6010B	5.0	N.D.	05/20/99	05/23/99
Beryllium.....	EPA 6010B	0.50	N.D.	05/20/99	05/23/99
Cadmium.....	EPA 6010B	0.50	N.D.	05/20/99	05/25/99
Chromium.....	EPA 6010B	2.0	3.8	05/20/99	05/23/99
Copper.....	EPA 6010B	2.5	15	05/20/99	05/23/99
Lead.....	EPA 6010B	2.5	N.D.	05/20/99	05/23/99
Mercury.....	EPA 7471A	0.020	0.031	05/18/99	05/18/99
Nickel.....	EPA 6010B	2.5	5.2	05/20/99	05/23/99
Selenium.....	EPA 6010B	10	N.D.	05/20/99	05/23/99
Silver.....	EPA 6010B	2.5	N.D.	05/20/99	05/23/99
Thallium.....	EPA 6010B	5.0	N.D.	05/20/99	05/23/99
Zinc.....	EPA 6010B	2.5	14	06/10/99	06/12/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



R.R.

Robyn Rice
 Project Manager

Del Mar Analytical

2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B19-(S/70)-5-10-99
 Lab Number: PIE00392

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 12-14, 1999
 Analyzed: May 13-24, 1999
 Reported: May 27, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/12/99	05/13/99
Arsenic.....	EPA 6010B	5.0	6.4	05/14/99	05/24/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/12/99	05/14/99
Cadmium.....	EPA 6010B	0.50	1.5	05/12/99	05/13/99
Chromium.....	EPA 6010B	2.0	28	05/12/99	05/13/99
Copper.....	EPA 6010B	2.5	54	05/12/99	05/13/99
Lead.....	EPA 6010B	2.5	5.0	05/12/99	05/13/99
Mercury.....	EPA 7471A	0.020	0.042	05/14/99	05/14/99
Nickel.....	EPA 6010B	2.5	20	05/12/99	05/13/99
Selenium.....	EPA 6010B	10	N.D.	05/12/99	05/13/99
Silver.....	EPA 6010B	2.5	N.D.	05/14/99	05/18/99
Thallium.....	EPA 6010B	5.0	N.D.	05/12/99	05/13/99
Zinc.....	EPA 6010B	2.5	37	05/12/99	05/13/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00391.QST <26 of 39>

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B18(GW/85)(5-10-99)
 Lab Number: PIE00394

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 11-13, 1999
 Analyzed: May 12-18, 1999
 Reported: May 27, 1999

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.25*	N.D.	05/11/99	05/18/99
Arsenic.....	EPA 200.7	0.050	0.59	05/11/99	05/12/99
Beryllium.....	EPA 200.7	0.10*	N.D.	05/11/99	05/14/99
Cadmium.....	EPA 200.7	0.0050	0.042	05/11/99	05/12/99
Chromium.....	EPA 200.7	0.010	1.7	05/11/99	05/12/99
Copper.....	EPA 200.7	0.10*	2.1	05/11/99	05/18/99
Lead.....	EPA 200.7	0.050	0.32	05/11/99	05/12/99
Mercury.....	EPA 245.1	0.00020	0.0044	05/13/99	05/13/99
Nickel.....	EPA 200.7	0.050	1.1	05/11/99	05/12/99
Selenium.....	EPA 200.7	0.24*	N.D.	05/11/99	05/14/99
Silver.....	EPA 200.7	0.050	N.D.	05/11/99	05/12/99
Thallium.....	EPA 200.7	0.050	0.13	05/11/99	05/12/99
Zinc.....	EPA 200.7	0.050	0.85	05/11/99	05/12/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B18(S/40)(5-10-99)
 Lab Number: PIE00395

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 12-14, 1999
 Analyzed: May 13-18, 1999
 Reported: May 27, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/12/99	05/13/99
Arsenic.....	EPA 6010B	5.0	N.D.(C)	05/12/99	05/13/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/12/99	05/14/99
Cadmium.....	EPA 6010B	0.50	2.0	05/12/99	05/13/99
Chromium.....	EPA 6010B	2.0	23	05/12/99	05/13/99
Copper.....	EPA 6010B	2.5	17	05/12/99	05/13/99
Lead.....	EPA 6010B	2.5	8.6	05/12/99	05/13/99
Mercury.....	EPA 7471A	0.020	0.032	05/14/99	05/14/99
Nickel.....	EPA 6010B	2.5	21	05/12/99	05/13/99
Selenium.....	EPA 6010B	10	N.D.	05/12/99	05/13/99
Silver.....	EPA 6010B	2.5	N.D.	05/14/99	05/18/99
Thallium.....	EPA 6010B	5.0	N.D.	05/12/99	05/13/99
Zinc.....	EPA 6010B	2.5	32	05/12/99	05/13/99

C = Continuing Calibration Verification recovery was above the method control limits; Data not impacted.

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



R.R.
 Robyn Rice
 Project Manager



2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B19(GW/80)5-10-99
 Lab Number: PIE00396

Sampled: May 10, 1999
 Received: May 10, 1999
 Extracted: May 11-13, 1999
 Analyzed: May 12-18, 1999
 Reported: May 27, 1999

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/11/99	05/18/99
Arsenic.....	EPA 200.7	0.050	0.25	05/11/99	05/12/99
Beryllium.....	EPA 200.7	0.050*	N.D.	05/11/99	05/14/99
Cadmium.....	EPA 200.7	0.0050	0.013	05/11/99	05/12/99
Chromium.....	EPA 200.7	0.010	0.31	05/11/99	05/12/99
Copper.....	EPA 200.7	0.020	1.1	05/11/99	05/18/99
Lead.....	EPA 200.7	0.050	0.087	05/11/99	05/12/99
Mercury.....	EPA 245.1	0.00020	0.00097	05/13/99	05/13/99
Nickel.....	EPA 200.7	0.050	0.72	05/11/99	05/12/99
Selenium.....	EPA 200.7	0.060	N.D.	05/11/99	05/12/99
Silver.....	EPA 200.7	0.050	N.D.	05/11/99	05/12/99
Thallium.....	EPA 200.7	0.050	0.072	05/11/99	05/12/99
Zinc.....	EPA 200.7	0.050	0.34	05/11/99	05/12/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mierher

Method Blank

Extracted: May 13, 1999
 Analyzed: May 14, 1999
 Reported: May 27, 1999
 Matrix: Soil

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aldrin.....	5.0	N.D.
alpha-BHC.....	5.0	N.D.
beta-BHC.....	5.0	N.D.
delta-BHC.....	10	N.D.
gamma-BHC (Lindane).....	5.0	N.D.
Chlordane.....	100	N.D.
4,4'-DDD.....	5.0	N.D.
4,4'-DDE.....	5.0	N.D.
4,4'-DDT.....	5.0	N.D.
Dieldrin.....	5.0	N.D.
Endosulfan I.....	5.0	N.D.
Endosulfan II.....	5.0	N.D.
Endosulfan sulfate.....	20	N.D.
Endrin.....	5.0	N.D.
Endrin aldehyde.....	5.0	N.D.
Heptachlor.....	5.0	N.D.
Heptachlor epoxide.....	5.0	N.D.
Methoxychlor.....	5.0	N.D.
Toxaphene.....	200	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	77%
Decachlorobiphenyl (30-130).....	85%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999
 Matrix: Water

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aldrin.....	0.10	N.D.
alpha-BHC.....	0.10	N.D.
beta-BHC.....	0.10	N.D.
delta-BHC.....	0.25	N.D.
gamma-BHC (Lindane).....	0.10	N.D.
Chlordane.....	2.0	N.D.
4,4'-DDD.....	0.10	N.D.
4,4'-DDE.....	0.10	N.D.
4,4'-DDT.....	0.10	N.D.
Dieldrin.....	0.10	N.D.
Endosulfan I.....	0.10	N.D.
Endosulfan II.....	0.10	N.D.
Endosulfan sulfate.....	0.50	N.D.
Endrin.....	0.10	N.D.
Endrin aldehyde.....	0.10	N.D.
Heptachlor.....	0.10	N.D.
Heptachlor epoxide.....	0.10	N.D.
Methoxychlor.....	0.10	N.D.
Toxaphene.....	4.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	87%
Decachlorobiphenyl (30-130).....	83%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 13, 1999
 Analyzed: May 14, 1999
 Reported: May 27, 1999
 Matrix: Soil

POLYCHLORINATED BIPHENYLS by GC (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	50	N.D.
Aroclor 1221.....	50	N.D.
Aroclor 1232.....	50	N.D.
Aroclor 1242.....	50	N.D.
Aroclor 1248.....	50	N.D.
Aroclor 1254.....	50	N.D.
Aroclor 1260.....	50	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)


 Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	93%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999
 Matrix: Water

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Tetrachloro-m-xylene (30-130)....	93%
Decachlorobiphenyl (30-130).....	92%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 11, 1999
 Analyzed: May 12, 1999
 Reported: May 27, 1999
 Matrix: Soil

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	500	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropane.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	250	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane...	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane...	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)


 Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	86%
Toluene-d8 (50-135).....	87%
4-Bromofluorobenzene (70-130).....	86%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 11, 1999
 Analyzed: May 11, 1999
 Revised: Jun 22, 1999
 Matrix: Water

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	10	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	5.0	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane...	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane...	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane.....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

***See Corrective Action Report.**

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	73%
Toluene-d8 (75-140).....	75%
4-Bromofluorobenzene (75-135).....	73%*

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 13, 1999
 Analyzed: May 14, 1999
 Reported: May 27, 1999
 Matrix: Soil

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-110).....	69%
Phenol-d6 (35-110).....	77%
2,4,6-Tribromophenol (40-110).....	92%
Nitrobenzene-d5 (30-110).....	73%
2-Fluorobiphenyl (40-110).....	78%
Terphenyl-d14 (45-110).....	86%

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 12, 1999
 Analyzed: May 14, 1999
 Reported: May 27, 1999
 Matrix: Water

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine
 Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-110).....	60%
Phenol-d6 (40-115).....	65%
2,4,6-Tribromophenol (40-140).....	77%
Nitrobenzene-d5 (35-120).....	54%
2-Fluorobiphenyl (30-150).....	67%
Terphenyl-d14 (45-150).....	82%

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 11-13, 1999
 Analyzed: May 12-18, 1999
 Reported: May 27, 1999
 Matrix: Water

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/11/99	05/18/99
Arsenic.....	EPA 200.7	0.050	N.D.	05/11/99	05/12/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/11/99	05/14/99
Cadmium.....	EPA 200.7	0.0050	N.D.	05/11/99	05/12/99
Chromium.....	EPA 200.7	0.010	N.D.	05/11/99	05/12/99
Copper.....	EPA 200.7	0.020	N.D.	05/11/99	05/18/99
Lead.....	EPA 200.7	0.050	N.D.	05/11/99	05/12/99
Mercury.....	EPA 245.1	0.00020	N.D.	05/13/99	05/13/99
Nickel.....	EPA 200.7	0.050	N.D.	05/11/99	05/12/99
Selenium.....	EPA 200.7	0.060	N.D.	05/11/99	May 12-14, 1999
Silver.....	EPA 200.7	0.050	N.D.	05/11/99	05/12/99
Thallium.....	EPA 200.7	0.050	N.D.	05/11/99	05/12/99
Zinc.....	EPA 200.7	0.050	N.D.	05/11/99	05/12/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



MS/MSD DATA REPORT

EPA Method: 8081A
 Matrix: Soil
 Instrument: GC

Date: 5/14/99
 Sample #: IE01102
 Batch #: IE13PE1S

Acceptance Limits

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
DDE	0	20	17.6	16.5	88%	83%	6%	50	20-145
DDD	0	20	18.1	17.4	91%	87%	4%	30	50-130
DDT	0	20	19.1	17.7	96%	89%	8%	30	20-160

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

- QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 8081
 Matrix: Water
 Instrument: GC

Date: 05/15/99
 Sample #: LCS/LCSD*
 Batch #: IE14PE1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
DDE	0	0.5	0.391	0.409	78%	82%	4%	40	55-125
DDD	0	0.5	0.379	0.400	76%	80%	5%	20	60-130
DDT	0	0.5	0.388	0.408	78%	82%	5%	20	55-145

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provide

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) Note: This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



Del Mar Analytical

GC CALIBRATION CHECK CRITERIA

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Method: 8081A
 QC Batch: E14 #6

Associated Samples: PIE00391

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
D-BHC	1	117

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

GC CALIBRATION CHECK CRITERIA

Method: 8081A
 QC Batch: E14 #23

Associated Samples: PIE00391

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
B-BHC	2	74
D-BHC	1	120
Endrin Ketone	1	119

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

GC CALIBRATION CHECK CRITERIA

Method: 8081A
 QC Batch: E15 #20

Associated Samples: PIE00391

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
B-BHC	2	70
D-BHC	1	130
Endrin Ketone	1	126
Endosulfan Sulfate	1	117
Methoxychlor	1	117

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

GC CALIBRATION CHECK CRITERIA

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Method: 8081A
 QC Batch: E16 #28

Associated Samples: PIE00391

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
D-BHC	1	120
DDD	1	122
DDT	2	69
Methoxychlor	2	81

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



MS/MSD DATA REPORT

EPA Method: 8082 (PCB's only)
 Matrix: Soil
 Instrument: GC

Date: 5/14/99
 Sample #: IE01151
 Batch #: IE13PE1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
PCB 1016 (Arochlor)	0	160	181	186	113%	116%	3%	50	60-140
PCB 1260 (Arochlor)	0	160	167	197	104%	123%	16%	50	60-140

Definition of Terms

- R1..... Result of Sample Analysis
 Sp..... Spike Concentration added to sample
 MS..... Matrix Spike Result
 MSD..... Matrix Spike Duplicate Result
 PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
 PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
 RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
 Acceptance Limits..... Statistically determined on an annual basis.
- QA/QC Criteria..... All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 8082 (PCB's only)
 Matrix: Water
 Instrument: GC

Date: 5/15/99
 Sample #: LCS/LCSD*
 Batch #: IE14PE1W

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	<u>RPD</u>	<u>PR1/PR2</u>
								%	%
AR 1016	0	4.0	3.52	3.74	88%	94%	6%	≤ 50	60-140%
AR 1260	0	4.0	3.41	3.65	85%	91%	7%	≤ 50	60-140%

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

- QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

GC CALIBRATION CHECK CRITERIA

Method: 8082
QC Batch: E14

Associated Samples: PIE00391

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
#39 1016/1260	1	131/124
#54 1016/1260	1	142/134
#68 1016/1260	1	122/116
#75 1016/1260	1	144/140

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: 5/12-6/10, 1999
 Analyzed: 5/13-6/12, 1999
 Reported: 5/27-6/14, 1999
 Matrix: Soil

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	May 12-20, 1999	May 13-23, 1999
Arsenic.....	EPA 6010B	5.0	N.D.	May 12-20, 1999	May 13-24, 1999
Beryllium.....	EPA 6010B	0.50	N.D.	May 12-20, 1999	May 14-23, 1999
Cadmium.....	EPA 6010B	0.50	N.D.	May 12-20, 1999	May 13-25, 1999
Chromium.....	EPA 6010B	2.0	N.D.	May 12-20, 1999	May 13-23, 1999
Copper.....	EPA 6010B	2.5	N.D.	May 12-20, 1999	May 13-23, 1999
Lead.....	EPA 6010B	2.5	N.D.	May 12-20, 1999	May 13-23, 1999
Mercury.....	EPA 7471A	0.020	N.D.	May 14-18, 1999	May 14-18, 1999
Nickel.....	EPA 6010B	2.5	N.D.	May 12-20, 1999	May 13-23, 1999
Selenium.....	EPA 6010B	10	N.D.	May 12-20, 1999	May 13-23, 1999
Silver.....	EPA 6010B	2.5	N.D.	May 14-20, 1999	May 18-23, 1999
Thallium.....	EPA 6010B	5.0	N.D.	May 12-20, 1999	May 13-23, 1999
Zinc.....	EPA 6010B	2.5	N.D.	5/12-6/10, 1999	5/13-6/12, 1999

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92608 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Collon, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 8260B

BATCH: IE11011W
 DATE: 5/11/99

Analyte	St	R1	PR	QC Limits
	ppb	ppb	%	%
Vinyl Chloride	25	25.7	103%	25-200
1,1-Dichloroethene	25	29.4	118%	55-165
1,1-Dichloroethane	25	24.5	98%	65-155
Chloroform	25	25.5	102%	65-150
1,2-Dichloroethane	25	21.4	86%	65-155
Benzene	25	29.4	118%	60-155
Trichloroethene	25	24.6	98%	60-150
Toluene	25	27.2	109%	65-155
Tetrachloroethene	25	24.2	97%	60-155
Chlorobenzene	25	24.3	97%	65-145

Definition of Terms:

St. Concentration standard added to sample

R1. Standard Result

PR. Percent Recovery

Del Mar Analytical



MS/MSD DATA REPORT

EPA Method: 8260B
 Matrix: Water
 Instrument: GCMS

Date: 05/11/99
 Sample #: PIE00264
 Batch #: IE11011W

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Vinyl Chloride	59.7	25	74.7	70.6	60%	44%	6%	≤ 20	45-170%
1,1-Dichloroethene	0.0	25	27.5	27.6	110%	110%	0.4%	≤ 20	70-130%
1,1-Dichloroethane	0.0	25	24.3	24.3	97%	97%	0.0%	≤ 20	80-135%
Chloroform	0.0	25	25.0	25.1	100%	100%	0.4%	≤ 20	80-135%
1,2-Dichloroethane	0.0	25	21.5	21.6	86%	86%	0.5%	≤ 20	80-130%
Benzene	0.0	25	29.0	28.9	116%	116%	0.3%	≤ 20	75-135%
Trichloroethene	2.8	25	26.2	27.4	94%	98%	4.5%	≤ 20	75-130%
Toluene	0.0	25	25.4	26.4	102%	106%	3.9%	≤ 20	75-135%
Tetrachloroethene	0.0	25	23.4	24.5	94%	98%	4.6%	≤ 20	70-135%
Chlorobenzene	4.5	25	28.2	28.6	95%	96%	1.4%	≤ 20	75-125%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1)/SP) x 100
- PR2..... Percent Recovery of MSD; ((MSD-R1)/SP) x 100
- RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) x 100
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



BS/BSD DATA REPORT

EPA Method: 8260B
 Matrix: Soil
 Instrument: GCMS

Date: 05/12/99
 Sample #: PIE00350
 Batch #: IE12011S

Acceptance Limits

Analyte	<u>R1</u>	<u>Sp</u>	<u>BS</u>	<u>BSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Vinyl Chloride	0.0	1250	505	796	40%	64%	44.7%	≤ 20	0-110
1,1-Dichloroethene	0.0	1250	1200	1175	96%	94%	2.1%	≤ 20	46-134
1,1-Dichloroethane	0.0	1250	1091	1107	87%	89%	1.5%	≤ 20	62-122
Chloroform	0.0	1250	1080	1080	86%	86%	0.0%	≤ 20	66-130
1,2-Dichloroethane	0.0	1250	985	1021	79%	82%	3.6%	≤ 20	61-121
Benzene	0.0	1250	1211	1202	97%	96%	0.7%	≤ 20	68-128
Trichloroethene	0.0	1250	1042	1110	83%	89%	6.3%	≤ 20	59-119
Toluene	0.0	1250	1074	1109	86%	89%	3.2%	≤ 20	62-130
Tetrachloroethene	0.0	1250	1014	1036	81%	83%	2.1%	≤ 20	64-124
Chlorobenzene	265	1250	1286	1333	82%	85%	4%	≤ 20	70-130

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- BS..... Matrix Spike Result
- BSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of BS; $((BS-R1)/SP) \times 100$
- PR2..... Percent Recovery of BSD; $((BSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((BS-BSD)/(BS+BSD)/2) \times 100$
- Acceptance Limits..... Determined by Control Charts

QA/QC Criteria..... All QA/QC was within acceptance limits.

MS/MSD DATA REPORT

EPA Method: 8270B
 Matrix: Soil
 Instrument: GCMS

Date: 05/14/99
 Sample #: IE01110
 Batch #: IE13SE1S

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Phenol	0.1	50.0	44.0	45.0	88%	90%	2%	20	30-95
2-Chlorophenol	0.0	50.0	45.0	43.0	90%	86%	5%	25	30-100
1,4-Dichlorobenzene	0.1	50.0	34.0	35.0	68%	70%	3%	30	25-90
N-Nitroso-di-n-propylamine	0.0	50.0	50.0	46.0	100%	92%	8%	20	35-100
1,2,4-Trichlorobenzene	0.0	50.0	40.0	43.0	80%	86%	7%	25	30-95
Chloro-3-methylphenol	0.1	50.0	46.0	51.0	92%	102%	10%	25	40-110
Acenaphthene	0.1	50.0	46.0	50.0	92%	100%	8%	15	35-105
2,4-Dinitrotoluene	0.0	50.0	48.0	54.0	96%	108%	12%	20	35-110
4-Nitrophenol	1.9	50.0	54.0	62.0	104%	120%	14%	25	15-135
Pentachlorophenol	0.0	50.0	58.0	63.0	116%	126%	8%	30	30-115
Pyrene	0.0	50.0	45.0	49.0	90%	98%	9%	25	30-140

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.
- QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.

LABORATORY CONTROL SAMPLE

EPA METHOD: 8270

DATE: 5/14/99

Analyte	St	R1	PR
	ppb	ppb	%
Phenol	50	40	80%
2-Chlorophenol	50	38	76%
1,4-Dichlorobenzene	50	34	68%
n-Nitroso-di-n-propylamine	50	42	84%
1,2,4-Trichlorobenzene	50	38	76%
4-Chloro-3-Methylphenol	50	46	92%
Acenaphthene	50	45	90%
2,4-Dinitrotoluene	50	52	104%
4-Nitrophenol	50	58	116%
2,4-Dichlorophenol	50	62	124%
Pyrene	50	42	84%

Definition of Terms:

- St. Total of standard added to sample
 R1. Standard Result
 PR. Percent Recovery

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical

MS/MSD DATA REPORT

EPA Method: 8270
 Matrix: Water
 Instrument: GCMS

Date: 05/14/99
 Sample #: LCS/LCSD*
 Batch #: IE12SE1W

Acceptance Limits

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
Phenol	0.1	50.0	34.0	33.0	68%	66%	3%	15	40-110
2-Chlorophenol	0.0	50.0	34.0	33.0	68%	66%	3%	15	40-110
1,4-Dichlorobenzene	0.0	50.0	30.0	29.0	60%	58%	3%	15	35-110
N-Nitroso-di-n-propylamine	0.0	50.0	36.0	36.0	72%	72%	0%	20	45-120
1,2,4-Trichlorobenzene	0.0	50.0	31.0	30.0	62%	60%	3%	15	44-110
Chloro-3-methylphenol	0.0	50.0	40.0	38.0	80%	76%	5%	20	50-115
Acenaphthene	0.0	50.0	37.0	33.0	74%	66%	11%	15	50-115
2,4-Dinitrotoluene	0.0	50.0	42.0	40.0	84%	80%	5%	15	55-120
4-Nitrophenol	0.0	50.0	47.0	43.0	94%	86%	9%	15	45-120
Pentachlorophenol	0.0	50.0	48.0	44.0	96%	88%	9%	20	50-125
Pyrene	0.0	50.0	43.0	41.0	86%	82%	5%	25	70-120

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provided.

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C 11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/13/99
 Sample #: PIE00395

Analyte								MEAN
	R1	SP	MS	MSD	PR1	PR2	RPD	PR
	ppm	ppm	ppm	ppm	%	%	%	%
Arsenic	2.08	50.0	62.0	57.4	120%	111%	7.7%	115%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: All QA/QC was within acceptance limits.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C 11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 2484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9586 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/23/99
 Sample #: PIE00646

Analyte								MEAN
	R1	SP	MS	MSD	PR1	PR2	RPD	PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony	0	50.0	33.3	27.4	67%	55%	19.4%	61%
Arsenic	0	50.0	51.7	53.2	103%	106%	2.9%	105%
Beryllium	0	50.0	46.7	47.1	93%	94%	0.9%	94%
Chromium	6.31	50.0	50.9	52.2	89%	92%	2.5%	90%
Copper	30.2	50.0	78.7	79.9	97%	99%	1.5%	98%
Lead	31.7	50.0	74.9	80.6	86%	98%	7.3%	92%
Nickel	8.11	50.0	50.6	51.1	85%	86%	1.0%	85%
Selenium	0	50.0	41.3	42.8	83%	86%	3.6%	84%
Silver	0	50.0	20.1	48.1	40%	96%	82.1%	68%
Thallium	5.41	50.0	47.9	48.7	85%	87%	1.7%	86%
Zinc	58.2	50.0	105	116	94%	116%	10.0%	105%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: $< \text{ or } = 20\%$
 MS/MSD: 75-125%

QA/QC Criteria: The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C 11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 1484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 1830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
INSTRUMENT: ICP
MATRIX: Soil

DATE: 5/23/99

Analyte	St	R1	PR
	ppm	ppm	%
Antimony	50.0	48.3	97%
Silver	50.0	47.9	96%

Definition of Terms:

- St. Standard Concentration
- R1. Standard Result
- PR. Percent Recovery of R1; $(R1/St) \times 100$
- Acceptance Limits LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 6/11/99
 Sample #: PIF00053

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN
	ppm	ppm	ppm	ppm	%	%	%	PR
Zinc	104	50.0	120	123	32%	38%	2.5%	35%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr. Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785 0043 FAX (480) 785 0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
INSTRUMENT: ICP
MATRIX: Soil

DATE: 6/11/99

Analyte	St	R1	PR
	ppm	ppm	%
Zinc	50.0	43.7	87%

Definition of Terms:

- St. Standard Concentration
- R1..... Standard Result
- PR..... Percent Recovery of R1; $(R1/St) \times 100$
- Acceptance Limits** LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/13/99
 Sample #: PIE00395

Analyte								MEAN
	R1	SP	MS	MSD	PR1	PR2	RPD	PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony	0	50.0	23.2	22.9	46%	46%	1.3%	46%
Cadmium	1.99	50.0	51.6	52.6	99%	101%	1.9%	100%
Chromium	23.0	50.0	74.9	74.0	104%	102%	1.2%	103%
Copper	16.9	50.0	72.0	73.6	110%	113%	2.2%	112%
Lead	8.55	50.0	59.0	59.2	101%	101%	0.3%	101%
Nickel	20.7	50.0	75.2	74.6	109%	108%	0.8%	108%
Selenium	0	50.0	40.9	40.3	82%	81%	1.5%	81%
Thallium	2.57	50.0	52.5	48.4	100%	92%	8.1%	96%
Zinc	32.1	50.0	90.7	91.9	117%	120%	1.3%	118%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
INSTRUMENT: ICP
MATRIX: Soil

DATE: 5/13/99

Analyte	St	R1	PR
	ppm	ppm	%
Antimony	50.0	48.4	97%

Definition of Terms:

- St. Standard Concentration
- R1. Standard Result
- PR. Percent Recovery of R1; $(R1/St) \times 100$
- Acceptance Limits LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)

MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/18/99
 Sample #: PIE00450

Analyte	MEAN							
	R1	SP	MS	MSD	PR1	PR2	RPD	PR
	ppm	ppm	ppm	ppm	%	%	%	%
Arsenic**	1120	50.0	970	1110	0%	0%	13.5%	0%
Silver*	39.6	50.0	32.1	95.9	0%	113%	99.7%	56%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
 MS/MSD: 75-125%

QA/QC Criteria: **Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See LCS for batch validation.
 *The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD: 6010B
INSTRUMENT: ICP
MATRIX: Soil

DATE: 5/18/99

Analyte	St	R1	PR
	ppm	ppm	%
Arsenic	50.0	56.7	113%
Silver	50.0	49.2	98%

Definition of Terms:

St. Standard Concentration

R1. Standard Result

PR. Percent Recovery of R1; $(R1/St) \times 100$

Acceptance Limits LCS: 80-120%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/14/99
 Sample #: PIE00395

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN
	ppm	ppm	ppm	ppm	%	%	%	PR
Beryllium	0	50.0	47.0	44.9	94%	90%	4.6%	92%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1) / SP) X 100
- PR2..... Percent Recovery of MSD; ((MSD-R1) / SP) X 100
- RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 75-125%

QA/QC Criteria: All QA/QC was within acceptance limits.

MS/MSD DATA REPORT

METHOD: 6010B
 INSTRUMENT: ICP
 MATRIX: Soil

Date: 5/24/99
 Sample #: PIE00646

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN
	ppm	ppm	ppm	ppm	%	%	%	PR
Cadmium	0	50.0	45.5	44.5	91%	89%	2.2%	90%

Definition or Terms:

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
 MS/MSD: 75-125%

QA/QC Criteria: All QA/QC was within acceptance limits.



MS/MSD DATA REPORT

EPA Method: 7471A
 Matrix: Soil
 Instrument: N/A

Date: 05/14/99
 Sample #: PIE00259
 Batch #: IE14HG1S

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppm	ppm	ppm	ppm	%	%	%	RPD	PR1/PR2
Mercury	0.154	0.333	0.417	0.419	79%	80%	0%	≤ 20	85-115%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.
- QA/QC Criteria..... The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.

LCS DATA REPORT

METHOD: 7471A
 MATRIX: Soil

DATE: 5/14/99

Analyte	Sp	LCS	PR
<u> </u>	<u>ppm</u>	<u>ppm</u>	<u>%</u>
Mercury	0.00200	0.00198	99%

Definition of Terms:

- Sp..... Standard Concentration
- LCS..... Laboratory Control Sample Result
- PR..... Percent Recovery of LCS; (LCS/Sp) X 100

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 3484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 7471A
 Matrix: Soil
 Instrument: N/A

Date: 05/18/99
 Sample #: PIE00928
 Batch #: IE18HG1S

Analyte

Mercury

R1	Sp	MS	MSD	PR1	PR2	RPD
ppm	ppm	ppm	ppm	%	%	%
0	0.333	0.339	0.346	102%	104%	2%

Acceptance Limits

RPD	PR1/PR2
%	%
≤ 20	85-115%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC was within acceptance limits.

MS/MSD DATA REPORT

EPA Method: 7471A
 Matrix: Soil
 Instrument: N/A

Date: 05/18/99
 Sample #: PIE00928
 Batch #: IE18HG1S

Analyte

Mercury

	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
								<u>RPD</u>	<u>PR1/PR2</u>
	ppm	ppm	ppm	ppm	%	%	%	%	
	0	0.333	0.339	0.346	102%	104%	2%	≤ 20	85-115%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.
- QA/QC Criteria..... All QA/QC was within acceptance limits.

MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/12/99
 Sample #: PIE00396

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Arsenic	0.25	1.0	1.04	1.06	79%	81%	1.9%	80%
Beryllium	0	1.0	0.823	0.844	82%	84%	2.5%	83%
Cadmium	0.0134	1.0	0.787	0.784	77%	77%	0.4%	77%
Chromium	0.309	1.0	1.14	1.11	83%	80%	2.7%	82%
Lead	0.0865	1.0	0.831	0.874	74%	79%	5.0%	77%
Nickel	0.722	1.0	1.46	1.41	74%	69%	3.5%	71%
Selenium	0	1.0	0.718	0.750	72%	75%	4.4%	73%
Silver	0	0.05	0.0508	0.0451	102%	90%	11.9%	96%
Thallium	0.0721	1.0	0.776	0.827	70%	75%	6.4%	73%
C	0.338	1.0	1.18	1.13	84%	79%	4.3%	82%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1) / SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1) / SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits RPD: < or = 20%
 MS/MSD: 70-130%

QA/QC Criteria: The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785 0043 FAX (480) 785-0851

LCS DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

DATE: 5/12/99

Analyte	St ppm	LCS ppm	PR %
Nickel	1.0	0.910	91%

Definition of Terms:

- St. Standard Concentration
- LCS. Standard Result
- PR. Percent Recovery of LCS; $(LCS/St) \times 100$
- Acceptance Limits LCS: 85-115%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



MS/MSD DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

Date: 5/18/99
 Sample #: PIE00396

Analyte	R1	SP	MS	MSD	PR1	PR2	RPD	MEAN PR
	ppm	ppm	ppm	ppm	%	%	%	%
Antimony	0	1.0	0.224	0.248	22%	25%	10.2%	24%
Copper	1.09	1.0	1.92	1.89	83%	80%	1.6%	82%

Definition of terms:

- R1..... Result of Sample Analysis
- SP..... Spike Concentration Added to Sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; ((MS-R1) / SP) X 100
- PR2..... Percent Recovery of MSD; ((MSD-R1) / SP) X 100
- RPD..... Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2) X 100
- Acceptance Limits RPD: < or = 20%
- MS/MSD: 70-130%

QA/QC Criteria: The MS/MSD recoveries and/or RPD were outside of acceptance limits due to sample matrix effects. See LCS for batch validation.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785 0851

LCS DATA REPORT

METHOD: 200.7
 INSTRUMENT: ICP
 MATRIX: Water

DATE: 5/18/99

Analyte	St	LCS	PR
	ppm	ppm	%
Antimony	1.0	0.939	94%

Definition of Terms:

- St. Standard Concentration
- LCS. Standard Result
- PR. Percent Recovery of LCS; (LCS/St) X 100

Acceptance Limits LCS: 85-115%

QA/QC CRITERIA: All QA/QC was within acceptance limits.

Del Mar Analytical (AZ0426)



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 245.1
 Matrix: Water
 Instrument: N/A

Date: 05/13/99
 Sample #: PIE00473
 Batch #: IE13HG1W

Analyte	<u>R1</u>	<u>Sp</u>	<u>MS</u>	<u>MSD</u>	<u>PR1</u>	<u>PR2</u>	<u>RPD</u>	<u>Acceptance Limits</u>	
	ppm	ppm	ppm	ppm	%	%	%	RPD	PR1/PR2
Mercury	0	0.00500	0.00497	0.00489	99%	98%	1.6%	≤ 20	70-130%

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.
- QA/QC Criteria..... All QA/QC was within acceptance limit.



May 25, 1999

Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, Arizona 85044
Attn: Robyn Rice

Report of Laboratory Results: ARF number: 30255

Dear Ms. Rice:

Two water and three soil samples for Project Number 'PIE00391.QST' were received May 12, 1999, in good condition. Written results are being provided on this May 25, 1999, for the requested analyses. All holding times were met. The MS/MSD was from a nonproject sample group. There was one hundred times the spike amount in the parent sample. The gross amount in this sample led to an elevated baseline at the Disulfoton retention time and probable carryover contamination of the associated LCS. Since there was no Diazinon or Disulfoton in this sample group, no further action was taken. No other unusual problems or complications were encountered with this sample set.

Sample Table

Sample Description	Del Mar ID	APPL Inc. ID	Sample Date
Soil	PIE00391	78843s	05/10/99
Soil	PIE00392	78844s	05/10/99
Water	PIE00394	78845w	05/10/99
Soil	PIE00395	78846s	05/10/99
Water	PIE00396	78847w	05/10/99

If you have any questions or require further information, please contact us at your convenience. Thank you for choosing APPL, Inc.

Sincerely,

Mike Ray, Laboratory Director
APPL, Inc.

MR/mr
Enclosure
cc: File

EPA 8141 OP Pesticides

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00391.QST

Sample ID: PIE00391

Sample Collection Date: 5/10/99

ARF: 30255

APPL ID AP78843

QCG: \$8141S-990514AS-16647

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/14/99	5/19/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Def	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/14/99	5/19/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/14/99	5/19/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/14/99	5/19/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Surrogate: Tributylphosphate	89.9	51-154	%	5/14/99	5/19/99
EPA 8141	Surrogate: Triphenylphosphate	97.9	63-151	%	5/14/99	5/19/99

Run #: 517070
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

EPA 8141 OP Pesticides

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00391.QST

ARF: 30255

Sample ID: PIE00392

APPL ID AP78844

Sample Collection Date: 5/10/99

QCG: \$8141S-990514AS-16647

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/14/99	5/19/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Def	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/14/99	5/19/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/14/99	5/19/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/14/99	5/19/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Surrogate: Tributylphosphate	89.4	51-154	%	5/14/99	5/19/99
EPA 8141	Surrogate: Triphenylphosphate	99.4	63-151	%	5/14/99	5/19/99

Run #: 517071

Instrument: NDR02

EPA 8141

El Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00391.QST

Sample ID: PIE00394

Sample Collection Date: 5/10/99

ARF: 30255

APPL ID AP78845

QCG: \$8141W-990517AW-1662

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	5.0	ug/L	5/17/99	5/19/99
EPA 8141	Boistar	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Chlorpyrifos	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Coumaphos	Not detected	1.0	ug/L	5/17/99	5/19/99
EPA 8141	Def	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Demeton-s	Not detected	1.0	ug/L	5/17/99	5/19/99
EPA 8141	Diazinon	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Dichlorvos	Not detected	1.0	ug/L	5/17/99	5/19/99
EPA 8141	Dimethoate	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Disulfoton	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	EPN	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Ethion	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Ethoprop	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Fensulfothion	Not detected	2.5	ug/L	5/17/99	5/19/99
EPA 8141	Fenthion	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Malathion	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Merphos	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Mevinphos	Not detected	3.5	ug/L	5/17/99	5/19/99
EPA 8141	Naled	Not detected	2.5	ug/L	5/17/99	5/19/99
EPA 8141	Parathion, ethyl	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Parathion, methyl	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Phorate	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Prowl	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Ronnel	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Stirophos	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Sulfotep	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Tepp	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Tokuthion	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Trichloronate	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Trifluralin	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Surrogate: Tributylphosphate	80.3	60-150	%	5/17/99	5/19/99
EPA 8141	Surrogate: Triphenylphosphate	75.9 #	76-140	%	5/17/99	5/19/99

= Recovery is outside QC limits.

Run #: 517080
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

EPA 8141 OP Pesticides

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00391.QST

ARF: 30255

Sample ID: PIE00395

APPL ID AP78846

Sample Collection Date: 5/10/99

QCG: \$8141S-990514AS-16647

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	500	ug/Kg	5/14/99	5/19/99
EPA 8141	Bolstar	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Chlorpyrifos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Coumaphos	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Def	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Demeton-s	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Diazinon	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Dichlorvos	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Dimethoate	Not detected	100	ug/Kg	5/14/99	5/19/99
EPA 8141	Disulfoton	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	EPN	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ethion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ethoprop	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Fensulfothion	Not detected	250	ug/Kg	5/14/99	5/19/99
EPA 8141	Fenthion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Malathion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Merphos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Mevinphos	Not detected	350	ug/Kg	5/14/99	5/19/99
EPA 8141	Naled	Not detected	250	ug/Kg	5/14/99	5/19/99
EPA 8141	Parathion, ethyl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Parathion, methyl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Phorate	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Prowl	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Ronnel	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Stirophos	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Tokuthion	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Trichloronate	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Trifluralin	Not detected	50	ug/Kg	5/14/99	5/19/99
EPA 8141	Surrogate: Tributylphosphate	77.0	51-154	%	5/14/99	5/19/99
EPA 8141	Surrogate: Triphenylphosphate	87.5	63-151	%	5/14/99	5/19/99

Run #: 517072
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

EPA 8141

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00391.QST

Sample ID: PIE00396

Sample Collection Date: 5/10/99

ARF: 30255

APPL ID AP78847

QCG: \$8141W-990517AW-1662

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8141	Azinphosmethyl	Not detected	5.0	ug/L	5/17/99	5/19/99
EPA 8141	Bolstar	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Chlorpyrifos	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Coumaphos	Not detected	1.0	ug/L	5/17/99	5/19/99
EPA 8141	Def	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Demeton-s	Not detected	1.0	ug/L	5/17/99	5/19/99
EPA 8141	Diazinon	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Dichlorvos	Not detected	1.0	ug/L	5/17/99	5/19/99
EPA 8141	Dimethoate	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Disulfoton	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	EPN	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Ethion	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Ethoprop	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Fensulfothion	Not detected	2.5	ug/L	5/17/99	5/19/99
EPA 8141	Fenthion	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Malathion	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Merphos	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Mevinphos	Not detected	3.5	ug/L	5/17/99	5/19/99
EPA 8141	Naled	Not detected	2.5	ug/L	5/17/99	5/19/99
EPA 8141	Parathion, ethyl	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Parathion, methyl	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Phorate	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Prowl	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Ronnel	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Stirophos	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Sulfotep	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Tepp	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Tokuthion	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Trichloronate	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Trifluralin	Not detected	0.50	ug/L	5/17/99	5/19/99
EPA 8141	Surrogate: Tributylphosphate	82.7	60-150	%	5/17/99	5/19/99
EPA 8141	Surrogate: Triphenylphosphate	77.9	76-140	%	5/17/99	5/19/99

Run #: 517081
Instrument: NPD03
Sequence: 990517
Dilution Factor: 1
Initials: FML

EPA 8151 HERBICIDE SOIL

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00391.QST

Sample ID: PIE00391

Sample Collection Date: 5/10/99

ARF: 30255

APPL ID AP78843

QCG: \$8151S-990517SA-16689

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/17/99	5/20/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/17/99	5/20/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/17/99	5/20/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/17/99	5/20/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/17/99	5/20/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/17/99	5/20/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/17/99	5/20/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	Surrogate recovery	113	93-141	%	5/17/99	5/20/99

Run #: 111
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

EPA 8151 HERBICIDE SOIL

Sci Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00391.QST

Sample ID: PIE00392

Sample Collection Date: 5/10/99

ARF: 30255

APPL ID AP78844

QCG: \$8151S-990517SA-16689

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/17/99	5/20/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/17/99	5/20/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/17/99	5/20/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/17/99	5/20/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/17/99	5/20/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/17/99	5/20/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/17/99	5/20/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	Surrogate recovery	127	93-141	%	5/17/99	5/20/99

Run #: 112
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

EPA 8151 Herbicides

Del Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice

Project: PIE00391.QST

ARF: 30255

Sample ID: PIE00394 *QST-BIB-(GW/25)-(5-10-99)*

APPL ID AP78845

Sample Collection Date: 5/10/99

QCG: \$8151-990514WA-16641

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	1.1	0.50	ug/L	5/14/99	5/19/99
EPA 8151	Dalapon	Not detected	1.0	ug/L	5/14/99	5/19/99
EPA 8151	2,4-DB	Not detected	1.0	ug/L	5/14/99	5/19/99
EPA 8151	Dicamba	Not detected	0.10	ug/L	5/14/99	5/19/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/14/99	5/19/99
EPA 8151	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/14/99	5/19/99
EPA 8151	MCPA	Not detected	100	ug/L	5/14/99	5/19/99
EPA 8151	MCPP	Not detected	100	ug/L	5/14/99	5/19/99
EPA 8151	2,4,5-T	Not detected	0.10	ug/L	5/14/99	5/19/99
EPA 8151	2,4,5-TP	Not detected	0.10	ug/L	5/14/99	5/19/99
EPA 8151	Surrogate Recovery	85.9	61-120	%	5/14/99	5/19/99

Run #: 82
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

EPA 8151 HERBICIDE SOIL

Al Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Robyn Rice
Project: PIE00391.QST
Sample ID: **PIE00395**
Sample Collection Date: 5/10/99

ARF: 30255
APPL ID **AP78846**
QCG: **\$8151S-990517SA-16689**

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	200	ug/kg	5/17/99	5/20/99
EPA 8151	Dalapon	Not detected	2000	ug/kg	5/17/99	5/20/99
EPA 8151	2,4-DB	Not detected	400	ug/kg	5/17/99	5/20/99
EPA 8151	Dicamba	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/17/99	5/20/99
EPA 8151	Dinoseb (DNBP)	Not detected	100	ug/kg	5/17/99	5/20/99
EPA 8151	MCPA	Not detected	40000	ug/kg	5/17/99	5/20/99
EPA 8151	MCPP	Not detected	40000	ug/kg	5/17/99	5/20/99
EPA 8151	2,4,5-T	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	2,4,5-TP	Not detected	40	ug/kg	5/17/99	5/20/99
EPA 8151	Surrogate recovery	119	93-141	%	5/17/99	5/20/99

Run #: 113
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

EPA 8151 Herbicides

Al Mar Analytical
9830 South 51st. St., Ste B-120
Phoenix, AZ 85044

Attn: Robyn Rice
Project: PIE00391.QST
Sample ID: PIE00396
Sample Collection Date: 5/10/99

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

ARF: 30255
APPL ID AP78847
QCG: \$8151-990514WA-16641

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8151	2,4-D	Not detected	0.50	ug/L	5/14/99	5/19/99
EPA 8151	Dalapon	Not detected	1.0	ug/L	5/14/99	5/19/99
EPA 8151	2,4-DB	Not detected	1.0	ug/L	5/14/99	5/19/99
EPA 8151	Dicamba	Not detected	0.10	ug/L	5/14/99	5/19/99
EPA 8151	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/14/99	5/19/99
EPA 8151	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/14/99	5/19/99
EPA 8151	MCPA	Not detected	100	ug/L	5/14/99	5/19/99
EPA 8151	MCPP	Not detected	100	ug/L	5/14/99	5/19/99
EPA 8151	2,4,5-T	Not detected	0.10	ug/L	5/14/99	5/19/99
EPA 8151	2,4,5-TP	Not detected	0.10	ug/L	5/14/99	5/19/99
EPA 8151	Surrogate Recovery	89.0	61-120	%	5/14/99	5/19/99

Run #: 83
Instrument: ECD01
Sequence: 990517
Dilution Factor: 1
Initials: KW

Method Blank

EPA 8141

Blank Name/QCG: 990517W - 16623
 Batch ID: \$8141W-990517AW

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	Azinphosmethyl	Not detected	5.0	ug/L	5/17/99	5/19/99
BLANK	Bolstar	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Chlorpyrifos	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Coumaphos	Not detected	1.0	ug/L	5/17/99	5/19/99
BLANK	Def	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Demeton-s	Not detected	1.0	ug/L	5/17/99	5/19/99
BLANK	Diazinon	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Dichlorvos	Not detected	1.0	ug/L	5/17/99	5/19/99
BLANK	Dimethoate	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Disulfoton	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	EPN	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Ethion	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Ethoprop	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Fensulfothion	Not detected	2.5	ug/L	5/17/99	5/19/99
BLANK	Fenthion	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Malathion	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Merphos	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Mevinphos	Not detected	3.5	ug/L	5/17/99	5/19/99
BLANK	Naled	Not detected	2.5	ug/L	5/17/99	5/19/99
BLANK	Parathion, ethyl	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Parathion, methyl	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Phorate	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Prowl	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Ronnel	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Stirophos	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Sulfotep	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Tepp	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Tokuthion	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Trichloronate	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Trifluralin	Not detected	0.50	ug/L	5/17/99	5/19/99
BLANK	Surrogate: Tributylphosphate	77.9	60-150	%	5/17/99	5/19/99
BLANK	Surrogate: Triphenylphosphate	82.6	76-140	%	5/17/99	5/19/99

Run #: 517073
Instrument: NPD03
Sequence: 990517
Initials: FML

MATIRX SPIKE

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: 78845 MS
Date/Initials: 5/19/99 FML
Extraction Date: 5/17/99
Matrix Type: Water
Units: ug/L

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Phorate	2.50	*****	1.55	61.9
Diazinon	2.50	*****	2.13	85.4
Disulfoton	2.50	*****	1.86	74.4
Methyl parathion	2.50	*****	1.92	76.9
Stirophos	2.50	*****	2.01	80.4
Ethion *	2.50	*****	1.44	57.4

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Tributyl phosphate	5.00	*****	3.79	75.8
Triphenyl phosphate	5.00	*****	3.63	72.5

	Prim Col	Sec Col
	Spike	Spike
Analysis Date:	5/19/99	
Analysis Time:	11:20 AM	
Instrument:	NPD03B	
Column:	DB-5	
Sample/Vial #:	79	
Extraction Ratio:	10/1000	
Dilution Factor:	1	

Comments:	* Ethion out of QC limits.

	Soil	Water
Phorate	26-98	22-96
Diazinon	61-139	57-130
Disulfoton	14-131	47-117
Meth Parathion	63-153	55-164
Stirophos	58-140	68-128
Ethion	66-131	65-134
Tributyl phosphate	51-154	60-150
Triphenyl phosphate	63-151	76-140

Matrix / Control Spike Recoveries

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: 990517AW LCS/LCSD
Date/Initials: 5/18/99 FML
Extraction Date: 5/17/99
Matrix Type: WATER
Units: ug/L

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery	%RPD (See below)
Phorate	2.50	0.00	1.66	66.6	1.69	67.8	1.8
Diazinon	2.50	0.00	2.47	98.6	2.45	98.1	0.5
Disulfoton	2.50	0.00	1.83	73.1	1.82	72.9	0.3
Methyl parathion	2.50	0.00	2.11	84.3	2.14	85.6	1.5
Stirophos	2.50	0.00	2.25	89.9	2.26	90.4	0.6
Ethion	2.50	0.00	1.91	76.5	1.86	74.2	3.1

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery
Tributyl phosphate	5.00	*****	4.07	81.4	4.19	83.9
Triphenyl phosphite	5.00	*****	4.38	87.6	4.21	84.2

	Primary Column	
	Spike	Spk Dup
Analysis Date:	5/19/99	5/19/99
Analysis Time:	8:13 AM	10:43 AM
Instrument:	NPD03B	NPD03B
Column:	DB-5	DB-5
Sample/Vial #:	74	78
Extraction Ratio:	10/1000	10/1000
Dilution Factor:	1	1

Secondary Column	
Spike	Spk Dup

Comments:

	Soil	Water	Soil RPD	Water RPD
Phorate	26-98	22-96	21	24
Diazinon	61-139	57-130	24	21
Disulfoton	14-131	47-117	26	22
Meth Parathion	63-153	55-164	19	24
Stirophos	58-140	68-128	21	25
Ethion	66-131	65-134	36	20
Tributyl phosphate	51-154	60-150	NA	NA
Triphenyl phosphate	63-151	76-140	NA	NA

Method Blank
EPA 8141 OP Pesticides

Blank Name/QCG: 990514S - 16647
Batch ID: \$8141S-990514AS

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	Azinphosmethyl	Not detected	500	ug/kg	5/14/99	5/18/99
BLANK	Bolstar	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Chlorpyrifos	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Coumaphos	Not detected	100	ug/kg	5/14/99	5/18/99
BLANK	Def	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Demeton-s	Not detected	100	ug/kg	5/14/99	5/18/99
BLANK	Diazinon	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Dichlorvos	Not detected	100	ug/kg	5/14/99	5/18/99
BLANK	Dimethoate	Not detected	100	ug/kg	5/14/99	5/18/99
BLANK	Disulfoton	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	EPN	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Ethion	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Ethoprop	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Fensulfothion	Not detected	250	ug/kg	5/14/99	5/18/99
BLANK	Fenthion	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Malathion	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Merphos	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Mevinphos	Not detected	350	ug/kg	5/14/99	5/18/99
BLANK	Naled	Not detected	250	ug/kg	5/14/99	5/18/99
BLANK	Parathion, ethyl	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Parathion, methyl	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Phorate	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Prowl	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Ronnel	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Stirophos	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Sulfotep	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	TEPP	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Tokuthion	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Trichloronate	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Trifluralin	Not detected	50	ug/kg	5/14/99	5/18/99
BLANK	Surrogate: Tributylphosphate	82.1	51-154	%	5/14/99	5/18/99
BLANK	Surrogate: Triphenylphosphate	81.2	63-151	%	5/14/99	5/18/99

Run #: 517046
Instrument: NPD03
Sequence: 990517
Initials: FML

Laboratory Control Spike - LCS

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: **990514AS LCS**
Date/Initials: 5/20/99 FML
Extraction Date: 5/14/99
Matrix Type: SOIL
Units: ug/kg

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Phorate	83.3	*****	58.6	70.3
Diazinon * %	83.3	*****	702	842
Disulfoton	83.3	*****	78.6	94.3
Methyl parathion	83.3	*****	75.0	90.0
Stirophos	83.3	*****	80.5	96.6
Ethion	83.3	*****	59.6	71.6

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery
Tributyl phosphate	167	*****	143	85.8
Triphenyl phosphate	167	*****	140	84.1

	Prim Col Spike	Sec Col Spike
Analysis Date:	5/18/99	
Analysis Time:	3:23 PM	
Instrument:	NPD03B	
Column:	DB-5	
Sample/Vial #:	47	
Extraction Ratio:	10/30	
Dilution Factor:	1	

Comments:	* Diazinon reported from 517097, DF 1:10.
	% Diazinon out of QC limits, possible sample contamination .

	Soil	Water
Phorate	26-98	22-96
Diazinon	61-139	57-130
Disulfoton	14-131	47-117
Meth Parathion	63-153	55-164
Stirophos	58-140	68-128
Ethion	66-131	65-134
Tributyl phosphate	51-154	60-150
Triphenyl phosphate	63-151	76-140

Matrix / Control Spike Recoveries

ORGANOPHOSPHORUS PESTICIDES

APPL, Inc.
4203 West Swift Avenue
Fresno, CA 93722

EPA Method #: 8141
APPL Sample #: 78586S MS/MSD
Date/Initials: 5/25/99 FML
Extraction Date: 5/14/99
Matrix Type: SOIL
Units: ug/kg

Compound Name (Limits = See below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery	%RPD (See below)
Phorate	83.3	0.000	57.6	69.1	57.9	69.4	0.5
Diazinon #	83.3	7600	11700	4920	9670	2484	19
Disulfoton @	83.3	0.000	186	223	173	207	7.4
Methyl parathion	83.3	0.000	99.1	119	100	120	1.2
Stirophos	83.3	0.000	82.3	98.8	83.6	100	1.5
Ethion	83.3	0.000	59.7	71.7	60.7	72.8	1.5

Surrogate (see below)	Spike Level	Matrix Results	Spike Results	Spk % Recovery	Spk Dup Results	Spk Dup % Recovery
Tributyl phosphate	167	*****	144	86.2	145	87.0
Triphenyl phosphatate	167	*****	137	82.2	137	82.1

	Primary Column	
	Spike	Spk Dup
Analysis Date:	5/18/99	5/18/99
Analysis Time:	4:01 PM	6:30 PM
Instrument:	NPD03B	NPD03B
Column:	DB-5	DB-5
Sample/Vial #:	48	52
Extraction Ratio:	10/30	10/30
Dilution Factor:	1	1

Secondary Column	
Spike	Spk Dup

Comments:	# Diazinon reported from 524024,524025, DF 1:200, NPD03.
	# Matrix results from 524023, df 1:200,NPD03
	§ Disulfoton affected by diazinon(baseline) is out of QC.

	Soil	Water	Soil RPD	Water RPD
Phorate	26-98	22-96	21	24
Diazinon	61-139	57-130	24	21
Disulfoton	14-131	47-117	26	22
Meth Parathion	63-153	55-164	19	24
Stirophos	58-140	68-128	21	25
Ethion	66-131	65-134	36	20
Tributyl phosphate	51-154	60-150	NA	NA
Triphenyl phosphate	63-151	76-140	NA	NA

Method Blank
EPA 8151 Herbicides

Blank Name/QCG: 990514W - 16641
Batch ID: \$8151-990514WA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	2,4-D	Not detected	0.50	ug/L	5/14/99	5/19/99
BLANK	Dalapon	Not detected	1.0	ug/L	5/14/99	5/19/99
BLANK	2,4-DB	Not detected	1.0	ug/L	5/14/99	5/19/99
BLANK	Dicamba	Not detected	0.10	ug/L	5/14/99	5/19/99
BLANK	Dichlorprop (2,4-DP)	Not detected	0.50	ug/L	5/14/99	5/19/99
BLANK	Dinoseb (DNBP)	Not detected	0.25	ug/L	5/14/99	5/19/99
BLANK	MCPA	Not detected	100	ug/L	5/14/99	5/19/99
BLANK	MCPP	Not detected	100	ug/L	5/14/99	5/19/99
BLANK	2,4,5-T	Not detected	0.10	ug/L	5/14/99	5/19/99
BLANK	2,4,5-TP	Not detected	0.10	ug/L	5/14/99	5/19/99
BLANK	Surrogate recovery	98.2	61-120	%	5/14/99	5/19/99

Run #: 79
Instrument: ECD01
Sequence: 990517
Initials: KW

Laboratory Control Spike Recoveries
EPA 8151 Herbicides

APPL ID 990514W-78845 LCS/LCSD - 16641
 Batch ID: S8151-990514WA

APPL Inc.
 4203 West Swift Avenue
 Fresno, CA 93722

Compound Name	Spike Level ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	1.00	0.847	0.873	84.7	87.3	53-134	3.0	32
2,4,5-TP	1.00	0.807	0.833	80.7	83.3	60-118	3.2	24
2,4-D	1.00	1.02	1.05	102	105	44-155	2.9	15
Dicamba	1.00	0.904	0.924	90.4	92.4	48-102	2.2	24
Dichlorprop (2,4-DP)	1.00	0.860	0.870	86.0	87.0	37-146	1.2	18
Dinoseb (DNBP)	1.00	0.839	0.842	83.9	84.2	73-173	0.36	31
Surrogate: 2,4-DCAA	3.00	2.83	2.86	94.3	95.3	61-120		

Comments: _____

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Extraction Date :	5/14/99	5/14/99
Analysis Date :	5/19/99	5/19/99
Instrument :	ECD01	ECD01
Run :	80	81
Analyst :	KW	

Method Blank
EPA 8151 HERBICIDE SOIL

Blank Name/QCG: 990517S - 16689
Batch ID: \$8151S-990517SA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Sample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
BLANK	2,4-D	Not detected	200	ug/kg	5/17/99	5/20/99
BLANK	Dalapon	Not detected	2000	ug/kg	5/17/99	5/20/99
BLANK	2,4-DB	Not detected	400	ug/kg	5/17/99	5/20/99
BLANK	Dicamba	Not detected	40	ug/kg	5/17/99	5/20/99
BLANK	Dichlorprop (2,4-DP)	Not detected	200	ug/kg	5/17/99	5/20/99
BLANK	Dinoseb (DNBP)	Not detected	100	ug/kg	5/17/99	5/20/99
BLANK	MCPA	Not detected	40000	ug/kg	5/17/99	5/20/99
BLANK	MCPP	Not detected	40000	ug/kg	5/17/99	5/20/99
BLANK	2,4,5-T	Not detected	40	ug/kg	5/17/99	5/20/99
BLANK	2,4,5-TP	Not detected	40	ug/kg	5/17/99	5/20/99
BLANK	Surrogate recovery	109	93-141	%	5/17/99	5/20/99

Run #: 95
Instrument: ECD01
Sequence: 990517
Initials: KW

Printed: 5/24/99 10:15:22 AM

Laboratory Control Spike Recoveries EPA 8151 HERBICIDE SOIL

APPL ID 990517S-78897 LCS/LCSD - 16689
Batch ID: \$8151S-990517SA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Compound Name	Spike Level ug/kg	SPK Result ug/kg	DUP Result ug/kg	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	200	204	211	102	106	77-148	3.4	27
2,4,5-TP	200	194	198	97.0	99.0	87-149	2.0	27
2,4-D	200	234	243	117	122	90-181	3.8	27
Dicamba	200	204	207	102	104	63-149	1.5	31
Dichlorprop (2,4-DP)	200	206	210	103	105	91-183	1.9	37
Dinoseb (DNBP)	200	204	209	102	105	71-167	2.4	NE
Surrogate recovery	600	663	661	111	110	93-141		

NE = Not established.

Comments: _____

	<u>SPK</u>	<u>DUP</u>
Primary		
Extraction Date :	5/17/99	5/17/99
Analysis Date :	5/20/99	5/20/99
Instrument :	ECD01	ECD01
Run :	96	97
Analyst :	KW	

Matrix Spike Recoveries EPA 8151 HERBICIDE SOIL

APPL ID 990517S-78897 MS/MSD - 16689
Batch ID: S8151S-990517SA

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Compound Name	Spike Level ug/kg	Matrix Result ug/kg	SPK Result ug/kg	DUP Result ug/kg	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2,4,5-T	200	ND	205	183	103	91.5	77-148	11.3	27
2,4,5-TP	200	ND	187	167	93.5	83.5 #	87-149	11.3	27
2,4-D	200	ND	252	231	126	116	90-181	8.7	27
Dicamba	200	ND	233	216	117	108	63-149	7.6	31
Dichlorprop (2,4-DP)	200	ND	213	194	107	97.0	91-183	9.3	37
Dinoseb (DNBP)	200	ND	196	174	98.0	87.0	71-167	11.9	NE
Surrogate recovery	600	NA	714	660	119	110	93-141		

= Recovery is outside QC limits.
NE = Not established.

Comments: _____

	SPK	DUP
Extraction Date :	5/17/99	5/17/99
Analysis Date :	5/20/99	5/20/99
Instrument :	ECD01	ECD01
Run :	101	102
Analyst :	KW	

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A Colton, CA 92324 (909) 370-4667 FAX (909) 370-1048
 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 South 51st St., Suite B-120, Phoenix, AZ 85044 (602) 785-0043 FAX (602) 785-0851
 Mesquite Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

CHAIN OF CUSTODY FORM

Quote # _____ Page 1 of 1

Client Name/Address:
 (ST ENVIRONMENTAL INC.)
 20 N 44TH ST, SUITE 100
 PHOENIX, AZ

Project Manager:
 JOHN MILLER

Sampler:
 JOHN MILLER

Project/PO Number:
 100-1050

Phone Number:
 (602) 241-1112

Fax Number:
 (602) 241-1200

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required										Special Instructions							
						100-1050	5000-5000	TECHNICAL	PHYSICAL	CHEMICAL	PHYSICAL	CHEMICAL	PHYSICAL	CHEMICAL	PHYSICAL		CHEMICAL						
017-15/30	soil	WACS	2	5-8-99		X																	
017-15/30	soil	WACS	3	5-8-99		X																	
TRAP Blank	AQ	VGA	2	5-10-99	HLI	X																	
01 B18 (6/1/99) (10/1)	AQ	WACS	1/3	5-10-99	HLI VOA	X																	
01 B18 (5/10/99) (10/1)	soil	WACS	3	5-10-99	HLI VOA	X																	
019 (6/1/99) (5/10/99)	H ₂ O	WACS	1/3	5-10-99	HLI VOA	X																	
019 (5/14) (5/10/99)	soil	WACS	1	5-10-99	HLI VOA	X																	

Relinquished By: _____ Date /Time: _____	Received by: _____ Date /Time: _____	Turnaround Time: (Check) same day _____ 72 hours _____ 24 hours _____ 5 days _____ 48 hours _____ normal _____
Relinquished By: _____ Date /Time: _____	Received by: _____ Date /Time: _____	
Relinquished By: _____ Date /Time: _____	Received in Lab by: _____ Date /Time: _____	Sample Integrity: (Check) intact _____ on ice _____



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Report Number: PIE00585

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 12-24, 1999
 Analyzed: May 13-25, 1999
 Reported: May 27, 1999

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PIE00585	QST-B20(GW/80) (5-11-99)	Water	8081A, 8082, 8260B, 8270, 200.7, 245.1, 8141A & 8151
PIE00586	QST-B31(GW/80) (5-11-99)	Water	8081A, 8082, 8260B, 8270, 200.7, 245.1, 8141A & 8151
PIE00587	QST-B30(GW/80) (5-11-99)	Water	8081A, 8082, 8260B, 8270, 200.7, 245.1, 8141A & 8151
PIE00588	QST-B20(S/76) (5-11-99)	Soil	Walkley Black Method
PIE00589	QST-B20(S/64) (5-11-99)	Soil	8081A, 8082, 8260B, 8270, 6010B, 7471A, 8141A & 8151
PIE00590	QST-B20(S/25) (5-11-99)	Soil	8081A, 8082, 8260B, 8270, 6010B, 7471A, 8141A & 8151

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All analyses met method criteria.

OBSERVATIONS: No significant observations were made.

SUBCONTRACTED: The 8141A & 8151 analysis was performed at APPL. The TOC analysis was performed at Columbia Analytical Services. Results are attached.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)


 Robyn Rice
 Project Manager



2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785 0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieber

Client Project ID: ESTES Landfill 6699030

Report Number: PIE00591

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 12-24, 1999
 Analyzed: May 13-25, 1999
 Reported: May 27, 1999

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	EPA ANALYSES
PIE00591	Trip Blank/B20	Water	8260B
PIE00592	QST-B40(GW/80) (5-11-99)	Water	8081A, 8082, 8260B, 8270, 200.7, 245.1, 8141A & 8151
PIE00593	QST-B21(S/20) 5-11-99	Soil	8081A, 8082, 8260B, 8270, 6010B, 7471A, 8141A & 8151
PIE00594	QST-B21(S/80) 5-11-99	Soil	8081A, 8082, 8260B, 8270, 6010B, 7471A, 8141A & 8151
PIE00595	QST-B21(GW/80) 5-11-99	Water	8081A, 8082, 8260B, 8270, 200.7, 245.1, 8141A & 8151
PIE00596	Trip Blank/B31	Water	8260B
PIE00597	Trip Blank/B30	Water	8260B
PIE00598	Trip Blank/B40	Water	8260B

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: All analyses met method criteria.

OBSERVATIONS: No significant observations were made.

SUBCONTRACTED: No analyses were subcontracted to an outside laboratory.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B20(GW/80)(5-11-99)
 Lab Number: PIE00585

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)			µg/L (ppb)
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	71%
Decachlorobiphenyl (30-130).....	52%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental 6 N. 44th St., Suite 110 Phoenix, AZ 85008 Attention: John Mieher	Client Project ID: ESTES Landfill 6699030 Sample Descript: Water, QST-B31(GW/80)(5-11-99) Lab Number: PIE00586	Sampled: May 11, 1999 Received: May 11, 1999 Extracted: May 14, 1999 Analyzed: May 15, 1999 Reported: May 27, 1999
--	--	--

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aldrin.....	0.10	N.D.
alpha-BHC.....	0.10	N.D.
beta-BHC.....	0.10	N.D.
delta-BHC.....	0.25	N.D.
gamma-BHC (Lindane).....	0.10	N.D.
Chlordane.....	2.0	N.D.
4,4'-DDD.....	0.10	N.D.
4,4'-DDE.....	0.10	N.D.
4,4'-DDT.....	0.10	N.D.
Dieldrin.....	0.10	N.D.
Endosulfan I.....	0.10	N.D.
Endosulfan II.....	0.10	N.D.
Endosulfan sulfate.....	0.50	N.D.
Endrin.....	0.10	N.D.
Endrin aldehyde.....	0.10	N.D.
Heptachlor.....	0.10	N.D.
Heptachlor epoxide.....	0.10	N.D.
Methoxychlor.....	0.10	N.D.
Toxaphene.....	4.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	64%
Decachlorobiphenyl (30-130).....	47%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B30(GW/80)(5-11-99)
 Lab Number: PIE00587

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aldrin.....	0.10	N.D.
alpha-BHC.....	0.10	N.D.
beta-BHC.....	0.10	N.D.
delta-BHC.....	0.25	N.D.
gamma-BHC (Lindane).....	0.10	N.D.
Chlordane.....	2.0	N.D.
4,4'-DDD.....	0.10	N.D.
4,4'-DDE.....	0.10	N.D.
4,4'-DDT.....	0.10	N.D.
Dieldrin.....	0.10	N.D.
Endosulfan I.....	0.10	N.D.
Endosulfan II.....	0.10	N.D.
Endosulfan sulfate.....	0.50	N.D.
Endrin.....	0.10	N.D.
Endrin aldehyde.....	0.10	N.D.
Heptachlor.....	0.10	N.D.
Heptachlor epoxide.....	0.10	N.D.
Methoxychlor.....	0.10	N.D.
Toxaphene.....	4.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	75%
Decachlorobiphenyl (30-130).....	33%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B20(S/64)(5-11-99)
 Lab Number: PIE00589

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 18, 1999
 Analyzed: May 18, 1999
 Reported: May 27, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aldrin.....	5.0	N.D.
alpha-BHC.....	5.0	N.D.
beta-BHC.....	5.0	N.D.
delta-BHC.....	10	N.D.
gamma-BHC (Lindane).....	5.0	N.D.
Chlordane.....	100	N.D.
4,4'-DDD.....	5.0	N.D.
4,4'-DDE.....	5.0	N.D.
4,4'-DDT.....	5.0	N.D.
Dieldrin.....	5.0	N.D.
Endosulfan I.....	5.0	N.D.
Endosulfan II.....	5.0	N.D.
Endosulfan sulfate.....	20	N.D.
Endrin.....	5.0	N.D.
Endrin aldehyde.....	5.0	N.D.
Heptachlor.....	5.0	N.D.
Heptachlor epoxide.....	5.0	N.D.
Methoxychlor.....	5.0	N.D.
Toxaphene.....	200	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	66%
Decachlorobiphenyl (30-130).....	97%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <6 of 61>

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B20(S/25)(5-11-99)
 Lab Number: PIE00590

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 18, 1999
 Analyzed: May 18, 1999
 Reported: May 27, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		µg/Kg (ppb)
Aldrin.....	25	.....	N.D.
alpha-BHC.....	25	.....	N.D.
beta-BHC.....	25	.....	N.D.
delta-BHC.....	50	.....	N.D.
gamma-BHC (Lindane).....	25	.....	N.D.
Chlordane.....	500	.....	N.D.
4,4'-DDD.....	25	.....	N.D.
4,4'-DDE.....	25	.....	57
4,4'-DDT.....	25	.....	N.D.
Dieldrin.....	25	.....	N.D.
Endosulfan I.....	25	.....	N.D.
Endosulfan II.....	25	.....	N.D.
Endosulfan sulfate.....	100	.....	N.D.
Endrin.....	25	.....	N.D.
Endrin aldehyde.....	25	.....	N.D.
Heptachlor.....	25	.....	N.D.
Heptachlor epoxide.....	25	.....	N.D.
Methoxychlor.....	25	.....	N.D.
Toxaphene.....	1,000	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	Diluted out
Decachlorobiphenyl (30-130).....	Diluted out

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B40(GW/80)(5-11-99)
 Lab Number: PIE00592

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)			µg/L (ppb)
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	79%
Decachlorobiphenyl (30-130).....	40%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental Client Project ID: ESTES Landfill 6699030 Sampled: May 11, 1999
 6 N. 44th St., Suite 110 Received: May 11, 1999
 Phoenix, AZ 85008 Sample Descript: Soil, QST-B21-(S/20)-5-11-99 Extracted: May 18, 1999
 Attention: John Mieher Lab Number: PIE00593 Analyzed: May 19, 1999
 Reported: May 27, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aldrin.....	25	N.D.
alpha-BHC.....	25	N.D.
beta-BHC.....	25	N.D.
delta-BHC.....	50	N.D.
gamma-BHC (Lindane).....	25	N.D.
Chlordane.....	500	N.D.
4,4'-DDD.....	25	N.D.
4,4'-DDE.....	25	N.D.
4,4'-DDT.....	25	N.D.
Dieldrin.....	25	N.D.
Endosulfan I.....	25	N.D.
Endosulfan II.....	25	N.D.
Endosulfan sulfate.....	100	N.D.
Endrin.....	25	N.D.
Endrin aldehyde.....	25	N.D.
Heptachlor.....	25	N.D.
Heptachlor epoxide.....	25	N.D.
Methoxychlor.....	25	N.D.
Toxaphene.....	1,000	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	Diluted out
Decachlorobiphenyl (30-130).....	Diluted out

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B21-(S/80)-5-11-99
 Lab Number: PIE00594

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 18, 1999
 Analyzed: May 18, 1999
 Reported: May 27, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3550/8081A)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aldrin.....	5.0	N.D.
alpha-BHC.....	5.0	N.D.
beta-BHC.....	5.0	N.D.
delta-BHC.....	10	N.D.
gamma-BHC (Lindane).....	5.0	N.D.
Chlordane.....	100	N.D.
4,4'-DDD.....	5.0	N.D.
4,4'-DDE.....	5.0	N.D.
4,4'-DDT.....	5.0	N.D.
Dieldrin.....	5.0	N.D.
Endosulfan I.....	5.0	N.D.
Endosulfan II.....	5.0	N.D.
Endosulfan sulfate.....	20	N.D.
Endrin.....	5.0	N.D.
Endrin aldehyde.....	5.0	N.D.
Heptachlor.....	5.0	N.D.
Heptachlor epoxide.....	5.0	N.D.
Methoxychlor.....	5.0	N.D.
Toxaphene.....	200	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	66%
Decachlorobiphenyl (30-130).....	84%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <10 of 61>



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B21-(GW/80)-5-11-99
 Lab Number: PIE00595

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999

ORGANOCHLORINE PESTICIDES by GC (EPA 3510/8081A)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)			µg/L (ppb)
Aldrin.....	0.10	.....	N.D.
alpha-BHC.....	0.10	.....	N.D.
beta-BHC.....	0.10	.....	N.D.
delta-BHC.....	0.25	.....	N.D.
gamma-BHC (Lindane).....	0.10	.....	N.D.
Chlordane.....	2.0	.....	N.D.
4,4'-DDD.....	0.10	.....	N.D.
4,4'-DDE.....	0.10	.....	N.D.
4,4'-DDT.....	0.10	.....	N.D.
Dieldrin.....	0.10	.....	N.D.
Endosulfan I.....	0.10	.....	N.D.
Endosulfan II.....	0.10	.....	N.D.
Endosulfan sulfate.....	0.50	.....	N.D.
Endrin.....	0.10	.....	N.D.
Endrin aldehyde.....	0.10	.....	N.D.
Heptachlor.....	0.10	.....	N.D.
Heptachlor epoxide.....	0.10	.....	N.D.
Methoxychlor.....	0.10	.....	N.D.
Toxaphene.....	4.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	64%
Decachlorobiphenyl (30-130).....	58%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <11 of 61>



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B20(GW/80)(5-11-99)
 Lab Number: PIE00585

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	55%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B31(GW/80)(5-11-99)
 Lab Number: PIE00586

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	49%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B30(GW/80)(5-11-99)
 Lab Number: PIE00587

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	33%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B20(S/64)(5-11-99)
 Lab Number: PIE00589

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 18, 1999
 Analyzed: May 18, 1999
 Reported: May 27, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit		Sample Result
	µg/Kg (ppb)		µg/Kg (ppb)
Aroclor 1016.....	50	.....	N.D.
Aroclor 1221.....	50	.....	N.D.
Aroclor 1232.....	50	.....	N.D.
Aroclor 1242.....	50	.....	N.D.
Aroclor 1248.....	50	.....	N.D.
Aroclor 1254.....	50	.....	N.D.
Aroclor 1260.....	50	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	100%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 6 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B20(S/25)(5-11-99)
 Lab Number: PIE00590

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 18, 1999
 Analyzed: May 18, 1999
 Reported: May 27, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	500	N.D.
Aroclor 1221.....	500	N.D.
Aroclor 1232.....	500	N.D.
Aroclor 1242.....	500	N.D.
Aroclor 1248.....	500	N.D.
Aroclor 1254.....	500	N.D.
Aroclor 1260.....	500	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	Diluted out

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B40(GW/80)(5-11-99)
 Lab Number: PIE00592

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit		Sample Result
	µg/L (ppb)			µg/L (ppb)
Aroclor 1016.....	1.0	.....	N.D.
Aroclor 1221.....	1.0	.....	N.D.
Aroclor 1232.....	1.0	.....	N.D.
Aroclor 1242.....	1.0	.....	N.D.
Aroclor 1248.....	1.0	.....	N.D.
Aroclor 1254.....	1.0	.....	N.D.
Aroclor 1260.....	1.0	.....	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	40%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B21-(S/20)-5-11-99
 Lab Number: PIE00593

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 18, 1999
 Analyzed: May 18, 1999
 Reported: May 27, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	500	N.D.
Aroclor 1221.....	500	N.D.
Aroclor 1232.....	500	N.D.
Aroclor 1242.....	500	N.D.
Aroclor 1248.....	500	N.D.
Aroclor 1254.....	500	N.D.
Aroclor 1260.....	500	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 10.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	Diluted out

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030

Sample Descript: Soil, QST-B21-(S/80)-5-11-99
 Lab Number: PIE00594

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 18, 1999
 Analyzed: May 18, 1999
 Reported: May 27, 1999

POLYCHLORINATED BIPHENYLS (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	50	N.D.
Aroclor 1221.....	50	N.D.
Aroclor 1232.....	50	N.D.
Aroclor 1242.....	50	N.D.
Aroclor 1248.....	50	N.D.
Aroclor 1254.....	50	N.D.
Aroclor 1260.....	50	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	86%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <19 of 61>

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B21-(GW/80)-5-11-99
 Lab Number: PIE00595

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	60%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B20(GW/80)(5-11-99)
 Lab Number: PIE00585

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 13, 1999
 Analyzed: May 13, 1999
 Revised: Jun 22, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone	50	57	1,3-Dichloropropane.....	5.0	N.D.
Benzene.....	5.0	N.D.	2,2-Dichloropropane.....	5.0	N.D.
Bromobenzene.....	13	N.D.	1,1-Dichloropropene.....	5.0	N.D.
Bromochloromethane.....	13	N.D.	cis-1,3-Dichloropropene.....	5.0	N.D.
Bromodichloromethane.....	5.0	N.D.	trans-1,3-Dichloropropene...	5.0	N.D.
Bromoform.....	13	N.D.	Ethylbenzene.....	5.0	N.D.
Bromomethane.....	13	N.D.	Hexachlorobutadiene.....	13	N.D.
2-Butanone (MEK).....	25	N.D.	2-Hexanone.....	25	N.D.
n-Butylbenzene.....	13	N.D.	Iodomethane.....	5.0	N.D.
sec-Butylbenzene.....	13	N.D.	Isopropylbenzene.....	5.0	N.D.
tert-Butylbenzene.....	13	N.D.	p-Isopropyltoluene.....	5.0	N.D.
Carbon Disulfide.....	13	N.D.	Methylene chloride.....	25	N.D.
Carbon tetrachloride.....	13	N.D.	4-Methyl-2-pentanone (MIBK).....	25	N.D.
Chlorobenzene	5.0	20	Methyl-tert-butyl ether (MTBE).....	13	N.D.
Chloroethane.....	13	N.D.	Naphthalene.....	13	N.D.
2-Chloroethyl vinyl ether.....	13	N.D.	n-Propylbenzene.....	5.0	N.D.
Chloroform.....	5.0	N.D.	Styrene.....	5.0	N.D.
Chloromethane.....	13	N.D.	1,1,1,2-Tetrachloroethane....	13	N.D.
2-Chlorotoluene.....	13	N.D.	1,1,2,2-Tetrachloroethane....	5.0	N.D.
4-Chlorotoluene.....	13	N.D.	Tetrachloroethene.....	5.0	N.D.
Dibromochloromethane.....	5.0	N.D.	Toluene.....	5.0	N.D.
1,2-Dibromo-3-chloropropane....	13	N.D.	1,2,3-Trichlorobenzene.....	13	N.D.
1,2-Dibromoethane (EDB).....	5.0	N.D.	1,2,4-Trichlorobenzene.....	13	N.D.
Dibromomethane.....	5.0	N.D.	1,1,1-Trichloroethane.....	5.0	N.D.
1,2-Dichlorobenzene.....	5.0	N.D.	1,1,2-Trichloroethane.....	5.0	N.D.
1,3-Dichlorobenzene.....	5.0	N.D.	Trichloroethene.....	5.0	N.D.
1,4-Dichlorobenzene.....	5.0	N.D.	Trichlorofluoromethane.....	13	N.D.
Dichlorodifluoromethane.....	13	N.D.	1,2,3-Trichloropropane.....	25	N.D.
1,1-Dichloroethane.....	5.0	N.D.	1,2,4-Trimethylbenzene.....	5.0	N.D.
1,2-Dichloroethane.....	5.0	N.D.	1,3,5-Trimethylbenzene.....	5.0	N.D.
1,1-Dichloroethene.....	13	N.D.	Vinyl acetate.....	13	N.D.
cis-1,2-Dichloroethene.....	5.0	N.D.	Vinyl chloride.....	5.0	N.D.
trans-1,2-Dichloroethene.....	5.0	N.D.	Xylenes (Total).....	25	N.D.
1,2-Dichloropropane.....	5.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.5.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	91%
Toluene-d8 (75-140).....	95%
4-Bromofluorobenzene (75-135).....	92%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <21 of 61>



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 726 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B31(GW/80)(5-11-99)
 Lab Number: PIE00586

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 13, 1999
 Analyzed: May 13, 1999
 Revised: Jun 22, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone	20	41	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	10	N.D.
Chlorobenzene	2.0	18	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	90%
Toluene-d8 (75-140).....	95%
4-Bromofluorobenzene (75-135).....	93%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <22 of 61>



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B30(GW/80)(5-11-99)
 Lab Number: PIE00587

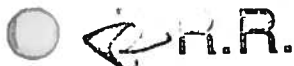
Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 13, 1999
 Analyzed: May 13, 1999
 Revised: Jun 29, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	20	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	3.8	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	10	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	3.1	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	2.8	Toluene.....	2.0	9.3
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	92%
Toluene-d8 (75-140).....	95%
4-Bromofluorobenzene (75-135).....	91%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B20(S/64)(5-11-99)
 Lab Number: PIE00589

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 12, 1999
 Analyzed: May 17, 1999
 Reported: May 27, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	1000	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	500	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

R.R.
 Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125)....	83%
Toluene-d8 (50-135).....	91%
4-Bromofluorobenzene (70-130)....	83%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B20(S/25)(5-11-99)
 Lab Number: PIE00590

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 12, 1999
 Analyzed: May 18, 1999
 Reported: May 27, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	1000	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	500	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	260
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane...	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane...	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	150	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	82%
Toluene-d8 (50-135).....	86%
4-Bromofluorobenzene (70-130).....	78%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, Trip Blank/B20
 Lab Number: PIE00591

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 13, 1999
 Analyzed: May 13, 1999
 Revised: Jun 22, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	20	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	10	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane.....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	94%
Toluene-d8 (75-140).....	95%
4-Bromofluorobenzene (75-135).....	95%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, QST-B40(GW/80)(5-11-99)
 Lab Number: PIE00592

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 13, 1999
 Analyzed: May 13, 1999
 Revised: Jun 22, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	20	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	4.3	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	10	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	3.7	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane...	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane...	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	3.5	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane.....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	96%
Toluene-d8 (75-140).....	95%
4-Bromofluorobenzene (75-135).....	93%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <27 of 61>

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B21-(S/20)-5-11-99
 Lab Number: PIE00593

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 12, 1999
 Analyzed: May 17, 1999
 Reported: May 27, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	1000	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	500	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	1,200
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane...	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane...	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	79%
Toluene-d8 (50-135).....	81%
4-Bromofluorobenzene (70-130).....	74%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B21-(S/80)-5-11-99
 Lab Number: PIE00594

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 12, 1999
 Analyzed: May 17, 1999
 Reported: May 27, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	1000	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene..	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	500	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane....	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane....	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	82%
Toluene-d8 (50-135).....	84%
4-Bromofluorobenzene (70-130).....	80%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 726 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B21-(GW/80)-5-11-99
 Lab Number: PIE00595

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 13, 1999
 Analyzed: May 13, 1999
 Revised: Jun 22, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	20	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	10	N.D.
Chlorobenzene.....	2.0	4.9	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	92%
Toluene-d8 (75-140).....	95%
4-Bromofluorobenzene (75-135).....	93%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <30 of 61>

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieder

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, Trip Blank/B31
 Lab Number: PIE00596

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 13, 1999
 Analyzed: May 13, 1999
 Revised: Jun 22, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	20	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropane.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	10	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	92%
Toluene-d8 (75-140).....	93%
4-Bromofluorobenzene (75-135).....	91%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, Trip Blank/B30
 Lab Number: PIE00597

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 13, 1999
 Analyzed: May 13, 1999
 Revised: Jun 22, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	20	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	10	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	92%
Toluene-d8 (75-140).....	94%
4-Bromofluorobenzene (75-135).....	91%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030

Sample Descript: Water, Trip Blank/B40
 Lab Number: PIE00598

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 13, 1999
 Analyzed: May 13, 1999
 Revised: Jun 22, 1999

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	20	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropane.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	10	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane.....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	91%
Toluene-d8 (75-140).....	94%
4-Bromofluorobenzene (75-135).....	91%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

2852 Allon Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mierher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B20(GW/80)(5-11-99)
 Lab Number: PIE00585

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 17, 1999
 Analyzed: May 20, 1999
 Reported: May 27, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	19
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine

Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-110).....	72%
Phenol-d6 (40-115).....	69%
2,4,6-Tribromophenol (40-140).....	92%
Nitrobenzene-d5 (35-120).....	76%
2-Fluorobiphenyl (30-150).....	83%
Terphenyl-d14 (45-150).....	94%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <34 of 61>

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B31(GW/80)(5-11-99)
 Lab Number: PIE00586

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 17, 1999
 Analyzed: May 20, 1999
 Reported: May 27, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzdine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	18
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine
 Analytes reported as N.D. were not present at or above the reporting limit.
 Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

2-Fluorophenol (40-110).....	68%
Phenol-d6 (40-115).....	70%
2,4,6-Tribromophenol (40-140).....	82%
Nitrobenzene-d5 (35-120).....	72%
2-Fluorobiphenyl (30-150).....	75%
Terphenyl-d14 (45-150).....	93%

Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B30(GW/80)(5-11-99)
 Lab Number: PIE00587

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 17, 1999
 Analyzed: May 20, 1999
 Reported: May 27, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine
 Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-110).....	76%
Phenol-d6 (40-115).....	74%
2,4,6-Tribromophenol (40-140).....	85%
Nitrobenzene-d5 (35-120).....	75%
2-Fluorobiphenyl (30-150).....	83%
Terphenyl-d14 (45-150).....	95%

Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B20(S/64)(5-11-99)
 Lab Number: PIE00589

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 18, 1999
 Analyzed: May 23, 1999
 Reported: May 27, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	200	N.D.	Dimethyl phthalate.....	200	N.D.
Acenaphthylene.....	200	N.D.	4,6-Dinitro-2-methylphenol.....	500	N.D.
Aniline.....	300	N.D.	2,4-Dinitrophenol.....	500	N.D.
Anthracene.....	200	N.D.	2,4-Dinitrotoluene.....	200	N.D.
Azobenzene.....	300	N.D.	2,6-Dinitrotoluene.....	200	N.D.
Benzidine.....	2,000	N.D.	Di-N-octyl phthalate.....	1,000	N.D.
Benzoic Acid.....	1,000	N.D.	Fluoranthene.....	200	N.D.
Benz(a)anthracene.....	200	N.D.	Fluorene.....	200	N.D.
Benzo(b)fluoranthene.....	400	N.D.	Hexachlorobenzene.....	200	N.D.
Benzo(k)fluoranthene.....	400	N.D.	Hexachlorobutadiene.....	200	N.D.
Benzo(g,h,i)perylene.....	300	N.D.	Hexachlorocyclopentadiene.....	1,000	N.D.
Benzo(a)pyrene.....	300	N.D.	Hexachloroethane.....	400	N.D.
Benzyl alcohol.....	400	N.D.	Indeno(1,2,3-cd)pyrene.....	400	N.D.
Bis(2-chloroethoxy)methane.....	200	N.D.	Isophorone.....	200	N.D.
Bis(2-chloroethyl)ether.....	200	N.D.	2-Methylnaphthalene.....	200	N.D.
Bis(2-chloroisopropyl)ether.....	200	N.D.	2-Methylphenol.....	300	N.D.
Bis(2-ethylhexyl)phthalate.....	2,000	N.D.	4-Methylphenol.....	300	N.D.
4-Bromophenyl phenyl ether.....	300	N.D.	Naphthalene.....	300	N.D.
Butyl benzyl phthalate.....	1,000	N.D.	2-Nitroaniline.....	400	N.D.
4-Chloroaniline.....	200	N.D.	3-Nitroaniline.....	400	N.D.
2-Chloronaphthalene.....	200	N.D.	4-Nitroaniline.....	1,000	N.D.
4-Chloro-3-methylphenol.....	200	N.D.	Nitrobenzene.....	1,000	N.D.
2-Chlorophenol.....	500	N.D.	2-Nitrophenol.....	200	N.D.
4-Chlorophenyl phenyl ether.....	200	N.D.	4-Nitrophenol.....	1,000	N.D.
Chrysene.....	200	N.D.	N-Nitrosodiphenylamine.....	400	N.D.
Dibenz(a,h)anthracene.....	200	N.D.	N-Nitroso-di-N-propylamine.....	300	N.D.
Dibenzofuran.....	200	N.D.	Pentachlorophenol.....	1,000	N.D.
Di-N-butyl phthalate.....	500	N.D.	Phenanthrene.....	200	N.D.
1,3-Dichlorobenzene.....	200	N.D.	Phenol.....	300	N.D.
1,4-Dichlorobenzene.....	200	N.D.	Pyrene.....	300	N.D.
1,2-Dichlorobenzene.....	200	N.D.	1,2,4-Trichlorobenzene.....	200	N.D.
3,3-Dichlorobenzidine.....	1,000	N.D.	2,4,5-Trichlorophenol.....	300	N.D.
2,4-Dichlorophenol.....	200	N.D.	2,4,6-Trichlorophenol.....	300	N.D.
Diethyl phthalate.....	200	N.D.			
2,4-Dimethylphenol.....	500	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-110).....	85%
Phenol-d6 (35-110).....	88%
2,4,6-Tribromophenol (40-110).....	105%
Nitrobenzene-d5 (30-110).....	77%
2-Fluorobiphenyl (40-110).....	96%
Terphenyl-d14 (45-110).....	96%

Robyn Rice
 Project Manager

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B20(S/25)(5-11-99)
 Lab Number: PIE00590

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 18, 1999
 Analyzed: May 23, 1999
 Reported: May 27, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	8,000	N.D.	Dimethyl phthalate.....	8,000	N.D.
Acenaphthylene.....	8,000	N.D.	4,6-Dinitro-2-methylphenol.....	20,000	N.D.
Aniline.....	12,000	N.D.	2,4-Dinitrophenol.....	20,000	N.D.
Anthracene.....	8,000	N.D.	2,4-Dinitrotoluene.....	8,000	N.D.
Azobenzene.....	12,000	N.D.	2,6-Dinitrotoluene.....	8,000	N.D.
Benzidine.....	80,000	N.D.	Di-N-octyl phthalate.....	40,000	N.D.
Benzoic Acid.....	40,000	N.D.	Fluoranthene.....	8,000	N.D.
Benz(a)anthracene.....	8,000	N.D.	Fluorene.....	8,000	N.D.
Benzo(b)fluoranthene.....	16,000	N.D.	Hexachlorobenzene.....	8,000	N.D.
Benzo(k)fluoranthene.....	16,000	N.D.	Hexachlorobutadiene.....	8,000	N.D.
Benzo(g,h,i)perylene.....	12,000	N.D.	Hexachlorocyclopentadiene.....	40,000	N.D.
Benzo(a)pyrene.....	12,000	N.D.	Hexachloroethane.....	16,000	N.D.
Benzyl alcohol.....	16,000	N.D.	Indeno(1,2,3-cd)pyrene.....	16,000	N.D.
Bis(2-chloroethoxy)methane.....	8,000	N.D.	Isophorone.....	8,000	N.D.
Bis(2-chloroethyl)ether.....	8,000	N.D.	2-Methylnaphthalene.....	8,000	N.D.
Bis(2-chloroisopropyl)ether.....	8,000	N.D.	2-Methylphenol.....	12,000	N.D.
Bis(2-ethylhexyl)phthalate.....	80,000	N.D.	4-Methylphenol.....	12,000	N.D.
4-Bromophenyl phenyl ether.....	12,000	N.D.	Naphthalene.....	12,000	N.D.
Butyl benzyl phthalate.....	40,000	N.D.	2-Nitroaniline.....	16,000	N.D.
4-Chloroaniline.....	8,000	N.D.	3-Nitroaniline.....	16,000	N.D.
2-Chloronaphthalene.....	8,000	N.D.	4-Nitroaniline.....	40,000	N.D.
4-Chloro-3-methylphenol.....	8,000	N.D.	Nitrobenzene.....	40,000	N.D.
2-Chlorophenol.....	20,000	N.D.	2-Nitrophenol.....	8,000	N.D.
4-Chlorophenyl phenyl ether.....	8,000	N.D.	4-Nitrophenol.....	40,000	N.D.
Chrysene.....	8,000	N.D.	N-Nitrosodiphenylamine.....	16,000	N.D.
Dibenz(a,h)anthracene.....	8,000	N.D.	N-Nitroso-di-N-propylamine.....	12,000	N.D.
Dibenzofuran.....	8,000	N.D.	Pentachlorophenol.....	40,000	N.D.
Di-N-butyl phthalate.....	20,000	N.D.	Phenanthrene.....	8,000	N.D.
1,3-Dichlorobenzene.....	8,000	N.D.	Phenol.....	12,000	N.D.
1,4-Dichlorobenzene.....	8,000	N.D.	Pyrene.....	12,000	N.D.
1,2-Dichlorobenzene.....	8,000	N.D.	1,2,4-Trichlorobenzene.....	8,000	N.D.
3,3-Dichlorobenzidine.....	40,000	N.D.	2,4,5-Trichlorophenol.....	12,000	N.D.
2,4-Dichlorophenol.....	8,000	N.D.	2,4,6-Trichlorophenol.....	12,000	N.D.
Diethyl phthalate.....	8,000	N.D.			
2,4-Dimethylphenol.....	20,000	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 80.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-110).....	Diluted out
Phenol-d6 (35-110).....	Diluted out
2,4,6-Tribromophenol (40-110).....	Diluted out
Nitrobenzene-d5 (30-110).....	Diluted out
2-Fluorobiphenyl (40-110).....	Diluted out
Terphenyl-d14 (45-110).....	Diluted out

Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B40(GW/80)(5-11-99)
 Lab Number: PIE00592

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 17, 1999
 Analyzed: May 23, 1999
 Reported: May 27, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine
 Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-110).....	70%
Phenol-d6 (40-115).....	77%
2,4,6-Tribromophenol (40-140).....	85%
Nitrobenzene-d5 (35-120).....	71%
2-Fluorobiphenyl (30-150).....	82%
Terphenyl-d14 (45-150).....	95%

Robyn Rice
 Project Manager

QST Environmental
 726 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B21-(S/20)-5-11-99
 Lab Number: PIE00593

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 18, 1999
 Analyzed: May 23, 1999
 Reported: May 27, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	4,000	N.D.	Dimethyl phthalate.....	4,000	N.D.
Acenaphthylene.....	4,000	N.D.	4,6-Dinitro-2-methylphenol.....	10,000	N.D.
Aniline.....	6,000	N.D.	2,4-Dinitrophenol.....	10,000	N.D.
Anthracene.....	4,000	N.D.	2,4-Dinitrotoluene.....	4,000	N.D.
Azobenzene.....	6,000	N.D.	2,6-Dinitrotoluene.....	4,000	N.D.
Benzidine.....	40,000	N.D.	Di-N-octyl phthalate.....	20,000	N.D.
Benzoic Acid.....	20,000	N.D.	Fluoranthene.....	4,000	N.D.
Benz(a)anthracene.....	4,000	N.D.	Fluorene.....	4,000	N.D.
Benzo(b)fluoranthene.....	8,000	N.D.	Hexachlorobenzene.....	4,000	N.D.
Benzo(k)fluoranthene.....	8,000	N.D.	Hexachlorobutadiene.....	4,000	N.D.
Benzo(g,h,i)perylene.....	6,000	N.D.	Hexachlorocyclopentadiene.....	20,000	N.D.
Benzo(a)pyrene.....	6,000	N.D.	Hexachloroethane.....	8,000	N.D.
Benzyl alcohol.....	8,000	N.D.	Indeno(1,2,3-cd)pyrene.....	8,000	N.D.
Bis(2-chloroethoxy)methane.....	4,000	N.D.	Isophorone.....	4,000	N.D.
Bis(2-chloroethyl)ether.....	4,000	N.D.	2-Methylnaphthalene.....	4,000	N.D.
Bis(2-chloroisopropyl)ether.....	4,000	N.D.	2-Methylphenol.....	6,000	N.D.
Bis(2-ethylhexyl)phthalate.....	40,000	N.D.	4-Methylphenol.....	6,000	N.D.
4-Bromophenyl phenyl ether.....	6,000	N.D.	Naphthalene.....	6,000	N.D.
Butyl benzyl phthalate.....	20,000	N.D.	2-Nitroaniline.....	8,000	N.D.
4-Chloroaniline.....	4,000	N.D.	3-Nitroaniline.....	8,000	N.D.
2-Chloronaphthalene.....	4,000	N.D.	4-Nitroaniline.....	20,000	N.D.
4-Chloro-3-methylphenol.....	4,000	N.D.	Nitrobenzene.....	20,000	N.D.
2-Chlorophenol.....	10,000	N.D.	2-Nitrophenol.....	4,000	N.D.
4-Chlorophenyl phenyl ether.....	4,000	N.D.	4-Nitrophenol.....	20,000	N.D.
Chrysene.....	4,000	N.D.	N-Nitrosodiphenylamine.....	8,000	N.D.
Dibenz(a,h)anthracene.....	4,000	N.D.	N-Nitroso-di-N-propylamine.....	6,000	N.D.
Dibenzofuran.....	4,000	N.D.	Pentachlorophenol.....	20,000	N.D.
Di-N-butyl phthalate.....	10,000	N.D.	Phenanthrene.....	4,000	N.D.
1,3-Dichlorobenzene.....	4,000	N.D.	Phenol.....	6,000	N.D.
1,4-Dichlorobenzene.....	4,000	N.D.	Pyrene.....	6,000	N.D.
1,2-Dichlorobenzene.....	4,000	N.D.	1,2,4-Trichlorobenzene.....	4,000	N.D.
3,3-Dichlorobenzidine.....	20,000	N.D.	2,4,5-Trichlorophenol.....	6,000	N.D.
2,4-Dichlorophenol.....	4,000	N.D.	2,4,6-Trichlorophenol.....	6,000	N.D.
Diethyl phthalate.....	4,000	N.D.			
2,4-Dimethylphenol.....	10,000	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 40.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-110).....	Diluted out
Phenol-d6 (35-110).....	Diluted out
2,4,6-Tribromophenol (40-110).....	Diluted out
Nitrobenzene-d5 (30-110).....	Diluted out
2-Fluorobiphenyl (40-110).....	Diluted out
Terphenyl-d14 (45-110).....	Diluted out

Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B21-(S/80)-5-11-99
 Lab Number: PIE00594

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 18, 1999
 Analyzed: May 23, 1999
 Reported: May 27, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	200	N.D.	Dimethyl phthalate.....	200	N.D.
Acenaphthylene.....	200	N.D.	4,6-Dinitro-2-methylphenol.....	500	N.D.
Aniline.....	300	N.D.	2,4-Dinitrophenol.....	500	N.D.
Anthracene.....	200	N.D.	2,4-Dinitrotoluene.....	200	N.D.
Azobenzene.....	300	N.D.	2,6-Dinitrotoluene.....	200	N.D.
Benzidine.....	2,000	N.D.	Di-N-octyl phthalate.....	1,000	N.D.
Benzoic Acid.....	1,000	N.D.	Fluoranthene.....	200	N.D.
Benz(a)anthracene.....	200	N.D.	Fluorene.....	200	N.D.
Benzo(b)fluoranthene.....	400	N.D.	Hexachlorobenzene.....	200	N.D.
Benzo(k)fluoranthene.....	400	N.D.	Hexachlorobutadiene.....	200	N.D.
Benzo(g,h,i)perylene.....	300	N.D.	Hexachlorocyclopentadiene.....	1,000	N.D.
Benzo(a)pyrene.....	300	N.D.	Hexachloroethane.....	400	N.D.
Benzyl alcohol.....	400	N.D.	Indeno(1,2,3-cd)pyrene.....	400	N.D.
Bis(2-chloroethoxy)methane.....	200	N.D.	Isophorone.....	200	N.D.
Bis(2-chloroethyl)ether.....	200	N.D.	2-Methylnaphthalene.....	200	N.D.
Bis(2-chloroisopropyl)ether.....	200	N.D.	2-Methylphenol.....	300	N.D.
Bis(2-ethylhexyl)phthalate.....	2,000	N.D.	4-Methylphenol.....	300	N.D.
4-Bromophenyl phenyl ether.....	300	N.D.	Naphthalene.....	300	N.D.
Butyl benzyl phthalate.....	1,000	N.D.	2-Nitroaniline.....	400	N.D.
4-Chloroaniline.....	200	N.D.	3-Nitroaniline.....	400	N.D.
2-Chloronaphthalene.....	200	N.D.	4-Nitroaniline.....	1,000	N.D.
4-Chloro-3-methylphenol.....	200	N.D.	Nitrobenzene.....	1,000	N.D.
2-Chlorophenol.....	500	N.D.	2-Nitrophenol.....	200	N.D.
4-Chlorophenyl phenyl ether.....	200	N.D.	4-Nitrophenol.....	1,000	N.D.
Chrysene.....	200	N.D.	N-Nitrosodiphenylamine.....	400	N.D.
Dibenz(a,h)anthracene.....	200	N.D.	N-Nitroso-di-N-propylamine.....	300	N.D.
Dibenzofuran.....	200	N.D.	Pentachlorophenol.....	1,000	N.D.
Di-N-butyl phthalate.....	500	N.D.	Phenanthrene.....	200	N.D.
1,3-Dichlorobenzene.....	200	N.D.	Phenol.....	300	N.D.
1,4-Dichlorobenzene.....	200	N.D.	Pyrene.....	300	N.D.
1,2-Dichlorobenzene.....	200	N.D.	1,2,4-Trichlorobenzene.....	200	N.D.
3,3-Dichlorobenzidine.....	1,000	N.D.	2,4,5-Trichlorophenol.....	300	N.D.
2,4-Dichlorophenol.....	200	N.D.	2,4,6-Trichlorophenol.....	300	N.D.
Diethyl phthalate.....	200	N.D.			
2,4-Dimethylphenol.....	500	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 2.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-110).....	87%
Phenol-d6 (35-110).....	89%
2,4,6-Tribromophenol (40-110).....	102%
Nitrobenzene-d5 (30-110).....	80%
2-Fluorobiphenyl (40-110).....	92%
Terphenyl-d14 (45-110).....	98%

Robyn Rice
 Project Manager

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B21-(GW/80)-5-11-99
 Lab Number: PIE00595

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 17, 1999
 Analyzed: May 23, 1999
 Reported: May 27, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	11	N.D.	Dimethyl phthalate.....	11	N.D.
Acenaphthylene.....	11	N.D.	4,6-Dinitro-2-methylphenol...	42	N.D.
Aniline.....	11	N.D.	2,4-Dinitrophenol.....	110	N.D.
Anthracene.....	11	N.D.	2,4-Dinitrotoluene.....	11	N.D.
Azobenzene*.....	21	N.D.	2,6-Dinitrotoluene.....	11	N.D.
Benzidine.....	110	N.D.	Di-N-octyl phthalate.....	42	N.D.
Benzoic Acid.....	110	N.D.	Fluoranthene.....	11	N.D.
Benz(a)anthracene.....	11	N.D.	Fluorene.....	11	N.D.
Benzo(b)fluoranthene.....	11	N.D.	Hexachlorobenzene.....	11	N.D.
Benzo(k)fluoranthene.....	11	N.D.	Hexachlorobutadiene.....	11	N.D.
Benzo(g,h,i)perylene.....	11	N.D.	Hexachlorocyclopentadiene.....	42	N.D.
Benzo(a)pyrene.....	11	N.D.	Hexachloroethane.....	11	N.D.
Benzyl alcohol.....	21	N.D.	Indeno(1,2,3-cd)pyrene.....	21	N.D.
Bis(2-chloroethoxy)methane.....	11	N.D.	Isophorone.....	11	N.D.
Bis(2-chloroethyl)ether.....	11	N.D.	2-Methylnaphthalene.....	11	N.D.
Bis(2-chloroisopropyl)ether.....	11	N.D.	2-Methylphenol.....	11	N.D.
Bis(2-ethylhexyl)phthalate.....	110	N.D.	4-Methylphenol.....	11	N.D.
4-Bromophenyl phenyl ether.....	11	N.D.	Naphthalene.....	11	N.D.
Butyl benzyl phthalate.....	21	N.D.	2-Nitroaniline.....	21	N.D.
4-Chloroaniline.....	11	N.D.	3-Nitroaniline.....	21	N.D.
2-Chloronaphthalene.....	11	N.D.	4-Nitroaniline.....	110	N.D.
4-Chloro-3-methylphenol.....	21	N.D.	Nitrobenzene.....	42	N.D.
2-Chlorophenol.....	11	N.D.	2-Nitrophenol.....	11	N.D.
4-Chlorophenyl phenyl ether.....	11	N.D.	4-Nitrophenol.....	110	N.D.
Chrysene.....	11	N.D.	N-Nitrosodiphenylamine.....	11	N.D.
Dibenz(a,h)anthracene.....	21	N.D.	N-Nitroso-di-N-propylamine.....	11	N.D.
Dibenzofuran.....	11	N.D.	Pentachlorophenol.....	42	N.D.
Di-N-butyl phthalate.....	21	N.D.	Phenanthrene.....	11	N.D.
1,3-Dichlorobenzene.....	11	N.D.	Phenol.....	11	N.D.
1,4-Dichlorobenzene.....	11	N.D.	Pyrene.....	11	N.D.
1,2-Dichlorobenzene.....	11	N.D.	1,2,4-Trichlorobenzene.....	11	N.D.
3,3-Dichlorobenzidine.....	42	N.D.	2,4,5-Trichlorophenol.....	21	N.D.
2,4-Dichlorophenol.....	11	N.D.	2,4,6-Trichlorophenol.....	21	N.D.
Diethyl phthalate.....	11	N.D.			
2,4-Dimethylphenol.....	21	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised by a factor of 1.06.

*Due to sample matrix effects, the surrogate recovery was outside acceptance limits.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-110).....	48%
Phenol-d6 (40-115).....	0%*
2,4,6-Tribromophenol (40-140).....	67%
Nitrobenzene-d5 (35-120).....	59%
2-Fluorobiphenyl (30-150).....	68%
Terphenyl-d14 (45-150).....	79%

Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B20(GW/80)(5-11-99)
 Lab Number: PIE00585

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 13-19, 1999
 Analyzed: May 14-21, 1999
 Reported: May 27, 1999

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/13/99	05/19/99
Arsenic.....	EPA 200.7	0.050	0.20	05/13/99	05/21/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/13/99	05/14/99
Cadmium.....	EPA 200.7	0.0050	N.D.	05/13/99	05/21/99
Chromium.....	EPA 200.7	0.010	0.18	05/13/99	05/14/99
Copper.....	EPA 200.7	0.020	0.83	05/13/99	05/14/99
Lead.....	EPA 200.7	0.050	0.097	05/13/99	05/14/99
Mercury.....	EPA 245.1	0.00020	0.00031	05/19/99	05/19/99
Nickel.....	EPA 200.7	0.050	0.46	05/13/99	05/14/99
Selenium.....	EPA 200.7	0.060	N.D.	05/13/99	05/14/99
Silver.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99
Thallium.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99
Zinc.....	EPA 200.7	0.050	0.19	05/13/99	05/14/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <43 of 61>



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 726 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B31(GW/80)(5-11-99)
 Lab Number: PIE00586

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 13-19, 1999
 Analyzed: May 14-21, 1999
 Reported: May 27, 1999

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/13/99	05/19/99
Arsenic.....	EPA 200.7	0.050	0.20	05/13/99	05/21/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/13/99	05/14/99
Cadmium.....	EPA 200.7	0.0050	0.0093	05/13/99	05/21/99
Chromium.....	EPA 200.7	0.010	0.19	05/13/99	05/14/99
Copper.....	EPA 200.7	0.020	1.1	05/13/99	05/14/99
Lead.....	EPA 200.7	0.050	0.14	05/13/99	05/14/99
Mercury.....	EPA 245.1	0.00020	0.00048	05/19/99	05/19/99
Nickel.....	EPA 200.7	0.050	0.60	05/13/99	05/14/99
Selenium.....	EPA 200.7	0.060	N.D.	05/13/99	05/14/99
Silver.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99
Thallium.....	EPA 200.7	0.050	0.073	05/13/99	05/14/99
Zinc.....	EPA 200.7	0.050	0.23	05/13/99	05/14/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <44 of 61>



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B30(GW/80)(5-11-99)
 Lab Number: PIE00587

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 13-24, 1999
 Analyzed: May 14-24, 1999
 Reported: May 27, 1999

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/13/99	05/19/99
Arsenic.....	EPA 200.7	0.050	N.D.(C)(L)	05/13/99	05/14/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/13/99	05/14/99
Cadmium.....	EPA 200.7	0.0050	N.D.	05/13/99	05/19/99
Chromium.....	EPA 200.7	0.010	N.D.	05/13/99	05/14/99
Copper.....	EPA 200.7	0.020	N.D.(C)	05/13/99	05/14/99
Lead.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99
Mercury.....	EPA 245.1	0.00020	N.D.	05/24/99	05/24/99
Nickel.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99
Selenium.....	EPA 200.7	0.060	N.D.	05/13/99	05/14/99
Silver.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99
Thallium.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99
Zinc.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99

C = Continuing Calibration Verification recovery was above the method control limits; Data not impacted.

L= Laboratory Control Sample recovery was above the method control limits; Data not impacted.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <45 of 61>

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B20(S/64)(5-11-99)
 Lab Number: PIE00589

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 12-21, 1999
 Analyzed: May 13-25, 1999
 Reported: May 27, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/12/99	05/13/99
Arsenic.....	EPA 6010B	5.0	5.4	05/21/99	05/25/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/12/99	05/13/99
Cadmium.....	EPA 6010B	0.50	1.6	05/12/99	05/13/99
Chromium.....	EPA 6010B	2.0	40	05/12/99	05/13/99
Copper.....	EPA 6010B	2.5	31	05/12/99	05/13/99
Lead.....	EPA 6010B	2.5	8.3	05/12/99	05/13/99
Mercury.....	EPA 7471A	0.020	0.030	05/14/99	05/14/99
Nickel.....	EPA 6010B	2.5	15	05/12/99	05/13/99
Selenium.....	EPA 6010B	10	N.D.	05/12/99	05/13/99
Silver.....	EPA 6010B	2.5	N.D.	05/14/99	05/18/99
Thallium.....	EPA 6010B	5.0	N.D.	05/12/99	05/13/99
Zinc.....	EPA 6010B	2.5	26	05/12/99	05/13/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B20(S/25)(5-11-99)
 Lab Number: PIE00590

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 12-14, 1999
 Analyzed: May 13-18, 1999
 Reported: May 27, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/12/99	05/13/99
Arsenic.....	EPA 6010B	5.0	N.D.(C)	05/12/99	05/13/99
Beryllium.....	EPA 6010B	5.0*	N.D.	05/12/99	05/13/99
Cadmium.....	EPA 6010B	0.50	3.0	05/12/99	05/13/99
Chromium.....	EPA 6010B	2.0	23	05/12/99	05/13/99
Copper.....	EPA 6010B	2.5	73	05/12/99	05/13/99
Lead.....	EPA 6010B	2.5	80	05/12/99	05/13/99
Mercury.....	EPA 7471A	0.020	0.24	05/14/99	05/14/99
Nickel.....	EPA 6010B	2.5	25	05/12/99	05/13/99
Selenium.....	EPA 6010B	10	N.D.	05/12/99	05/13/99
Silver.....	EPA 6010B	2.5	N.D.	05/14/99	05/18/99
Thallium.....	EPA 6010B	5.0	N.D.	05/12/99	05/13/99
Zinc.....	EPA 6010B	2.5	220	05/12/99	05/13/99

C = Continuing Calibration Verification recovery was above the method control limits; Data not impacted.

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <47 of 61>



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B40(GW/80)(5-11-99)
 Lab Number: PIE00592

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 13-24, 1999
 Analyzed: May 14-24, 1999
 Reported: May 27, 1999

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/13/99	05/19/99
Arsenic.....	EPA 200.7	0.050	N.D.(C)(L)	05/13/99	05/14/99
Beryllium.....	EPA 200.7	0.0050	N.D.	05/13/99	05/14/99
Cadmium.....	EPA 200.7	0.0050	N.D.	05/13/99	05/19/99
Chromium.....	EPA 200.7	0.010	N.D.	05/13/99	05/14/99
Copper.....	EPA 200.7	0.020	0.021	05/13/99	05/19/99
Lead.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99
Mercury.....	EPA 245.1	0.00020	N.D.	05/24/99	05/24/99
Nickel.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99
Selenium.....	EPA 200.7	0.060	N.D.	05/13/99	05/14/99
Silver.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99
Thallium.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99
Zinc.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99

C = Continuing Calibration Verification recovery was above the method control limits; Data not impacted.

L= Laboratory Control Sample recovery was above the method control limits; Data not impacted.

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B21-(S/20)-5-11-99
 Lab Number: PIE00593

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 14-21, 1999
 Analyzed: May 14-25, 1999
 Reported: May 27, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/21/99	05/23/99
Arsenic.....	EPA 6010B	5.0	6.8	05/21/99	05/23/99
Beryllium.....	EPA 6010B	2.0*	N.D.	05/21/99	05/25/99
Cadmium.....	EPA 6010B	0.50	2.1	05/21/99	05/23/99
Chromium.....	EPA 6010B	2.0	25	05/21/99	05/23/99
Copper.....	EPA 6010B	2.5	140	05/21/99	05/23/99
Lead.....	EPA 6010B	2.5	27	05/21/99	05/23/99
Mercury.....	EPA 7471A	0.020	0.12	05/14/99	05/14/99
Nickel.....	EPA 6010B	2.5	20	05/21/99	05/23/99
Selenium.....	EPA 6010B	10	N.D.	05/21/99	05/23/99
Silver.....	EPA 6010B	2.5	N.D.	05/21/99	05/23/99
Thallium.....	EPA 6010B	5.0	N.D.	05/21/99	05/23/99
Zinc.....	EPA 6010B	2.5	140	05/21/99	05/23/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <49 of 61>



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Soil, QST-B21-(S/80)-5-11-99
 Lab Number: PIE00594

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 14-21, 1999
 Analyzed: May 14-25, 1999
 Reported: May 27, 1999

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	05/21/99	05/23/99
Arsenic.....	EPA 6010B	5.0	8.4	05/21/99	05/23/99
Beryllium.....	EPA 6010B	2.0*	N.D.	05/21/99	05/25/99
Cadmium.....	EPA 6010B	0.50	0.94	05/21/99	05/23/99
Chromium.....	EPA 6010B	2.0	25	05/21/99	05/23/99
Copper.....	EPA 6010B	2.5	25	05/21/99	05/23/99
Lead.....	EPA 6010B	2.5	3.5	05/21/99	05/23/99
Mercury.....	EPA 7471A	0.020	N.D.	05/14/99	05/14/99
Nickel.....	EPA 6010B	2.5	12	05/21/99	05/23/99
Selenium.....	EPA 6010B	10	N.D.	05/21/99	05/23/99
Silver.....	EPA 6010B	2.5	N.D.	05/21/99	05/23/99
Thallium.....	EPA 6010B	5.0	N.D.	05/21/99	05/23/99
Zinc.....	EPA 6010B	2.5	74	05/21/99	05/23/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <50 of 61>



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Client Project ID: ESTES Landfill 6699030
 Sample Descript: Water, QST-B21-(GW/80)-5-11-99
 Lab Number: PIE00595

Sampled: May 11, 1999
 Received: May 11, 1999
 Extracted: May 13-19, 1999
 Analyzed: May 14-21, 1999
 Reported: May 27, 1999

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.25*	N.D.	05/13/99	05/21/99
Arsenic.....	EPA 200.7	0.25*	0.41	05/13/99	05/21/99
Beryllium.....	EPA 200.7	0.0050	0.0084	05/13/99	05/14/99
Cadmium.....	EPA 200.7	0.025*	N.D.	05/13/99	05/21/99
Chromium.....	EPA 200.7	0.010	0.50	05/13/99	05/14/99
Copper.....	EPA 200.7	0.10*	0.94	05/13/99	05/21/99
Lead.....	EPA 200.7	0.050	0.29	05/13/99	05/14/99
Mercury.....	EPA 245.1	0.00020	0.0022	05/19/99	05/19/99
Nickel.....	EPA 200.7	0.050	0.65	05/13/99	05/14/99
Selenium.....	EPA 200.7	0.060	N.D.	05/13/99	05/14/99
Silver.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99
Thallium.....	EPA 200.7	0.050	0.060	05/13/99	05/14/99
Zinc.....	EPA 200.7	0.050	0.42	05/13/99	05/14/99

*Analytes reported as N.D. were not present at or above the reporting limit. Due to matrix effects and/or other factors, the sample required dilution. Reporting limits for this sample have been raised.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <51 of 61>

ST Environmental
 726 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999
 Matrix: Water

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aldrin.....	0.10	N.D.
alpha-BHC.....	0.10	N.D.
beta-BHC.....	0.10	N.D.
delta-BHC.....	0.25	N.D.
gamma-BHC (Lindane).....	0.10	N.D.
Chlordane.....	2.0	N.D.
4,4'-DDD.....	0.10	N.D.
4,4'-DDE.....	0.10	N.D.
4,4'-DDT.....	0.10	N.D.
Dieldrin.....	0.10	N.D.
Endosulfan I.....	0.10	N.D.
Endosulfan II.....	0.10	N.D.
Endosulfan sulfate.....	0.50	N.D.
Endrin.....	0.10	N.D.
Endrin aldehyde.....	0.10	N.D.
Heptachlor.....	0.10	N.D.
Heptachlor epoxide.....	0.10	N.D.
Methoxychlor.....	0.10	N.D.
Toxaphene.....	4.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	87%
Decachlorobiphenyl (30-130).....	83%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 18, 1999
 Analyzed: May 18, 1999
 Reported: May 27, 1999
 Matrix: Soil

ORGANOCHLORINE PESTICIDES (EPA 8081A)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aldrin.....	5.0	N.D.
alpha-BHC.....	5.0	N.D.
beta-BHC.....	5.0	N.D.
delta-BHC.....	10	N.D.
gamma-BHC (Lindane).....	5.0	N.D.
Chlordane.....	100	N.D.
4,4'-DDD.....	5.0	N.D.
4,4'-DDE.....	5.0	N.D.
4,4'-DDT.....	5.0	N.D.
Dieldrin.....	5.0	N.D.
Endosulfan I.....	5.0	N.D.
Endosulfan II.....	5.0	N.D.
Endosulfan sulfate.....	20	N.D.
Endrin.....	5.0	N.D.
Endrin aldehyde.....	5.0	N.D.
Heptachlor.....	5.0	N.D.
Heptachlor epoxide.....	5.0	N.D.
Methoxychlor.....	5.0	N.D.
Toxaphene.....	200	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Tetrachloro-m-xylene (30-130).....	74%
Decachlorobiphenyl (30-130).....	79%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 14, 1999
 Analyzed: May 15, 1999
 Reported: May 27, 1999
 Matrix: Water

POLYCHLORINATED BIPHENYLS by GC (EPA 3510/8082)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aroclor 1016.....	1.0	N.D.
Aroclor 1221.....	1.0	N.D.
Aroclor 1232.....	1.0	N.D.
Aroclor 1242.....	1.0	N.D.
Aroclor 1248.....	1.0	N.D.
Aroclor 1254.....	1.0	N.D.
Aroclor 1260.....	1.0	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Tetrachloro-m-xylene (30-130)....	93%
Decachlorobiphenyl (30-130).....	92%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

QST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 18, 1999
 Analyzed: May 18, 1999
 Reported: May 27, 1999
 Matrix: Soil

POLYCHLORINATED BIPHENYLS by GC (EPA 3550/8082)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aroclor 1016.....	50	N.D.
Aroclor 1221.....	50	N.D.
Aroclor 1232.....	50	N.D.
Aroclor 1242.....	50	N.D.
Aroclor 1248.....	50	N.D.
Aroclor 1254.....	50	N.D.
Aroclor 1260.....	50	N.D.

Analysis completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept Limits):	
Decachlorobiphenyl (30-130).....	86%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

ST Environmental
 26 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 13, 1999
 Analyzed: May 13, 1999
 Revised: Jun 22, 1999
 Matrix: Water

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acetone.....	20	N.D.	1,3-Dichloropropane.....	2.0	N.D.
Benzene.....	2.0	N.D.	2,2-Dichloropropane.....	2.0	N.D.
Bromobenzene.....	5.0	N.D.	1,1-Dichloropropene.....	2.0	N.D.
Bromochloromethane.....	5.0	N.D.	cis-1,3-Dichloropropene.....	2.0	N.D.
Bromodichloromethane.....	2.0	N.D.	trans-1,3-Dichloropropene...	2.0	N.D.
Bromoform.....	5.0	N.D.	Ethylbenzene.....	2.0	N.D.
Bromomethane.....	5.0	N.D.	Hexachlorobutadiene.....	5.0	N.D.
2-Butanone (MEK).....	10	N.D.	2-Hexanone.....	10	N.D.
n-Butylbenzene.....	5.0	N.D.	Iodomethane.....	2.0	N.D.
sec-Butylbenzene.....	5.0	N.D.	Isopropylbenzene.....	2.0	N.D.
tert-Butylbenzene.....	5.0	N.D.	p-Isopropyltoluene.....	2.0	N.D.
Carbon Disulfide.....	5.0	N.D.	Methylene chloride.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.	4-Methyl-2-pentanone (MIBK).....	10	N.D.
Chlorobenzene.....	2.0	N.D.	Methyl-tert-butyl ether (MTBE).....	5.0	N.D.
Chloroethane.....	5.0	N.D.	Naphthalene.....	5.0	N.D.
2-Chloroethyl vinyl ether.....	5.0	N.D.	n-Propylbenzene.....	2.0	N.D.
Chloroform.....	2.0	N.D.	Styrene.....	2.0	N.D.
Chloromethane.....	5.0	N.D.	1,1,1,2-Tetrachloroethane....	5.0	N.D.
2-Chlorotoluene.....	5.0	N.D.	1,1,2,2-Tetrachloroethane....	2.0	N.D.
4-Chlorotoluene.....	5.0	N.D.	Tetrachloroethene.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.	Toluene.....	2.0	N.D.
1,2-Dibromo-3-chloropropane....	5.0	N.D.	1,2,3-Trichlorobenzene.....	5.0	N.D.
1,2-Dibromoethane (EDB).....	2.0	N.D.	1,2,4-Trichlorobenzene.....	5.0	N.D.
Dibromomethane.....	2.0	N.D.	1,1,1-Trichloroethane.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.	1,1,2-Trichloroethane.....	2.0	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.	Trichloroethene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.	Trichlorofluoromethane.....	5.0	N.D.
Dichlorodifluoromethane.....	5.0	N.D.	1,2,3-Trichloropropane.....	10	N.D.
1,1-Dichloroethane.....	2.0	N.D.	1,2,4-Trimethylbenzene.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.	1,3,5-Trimethylbenzene.....	2.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.	Vinyl acetate.....	5.0	N.D.
cis-1,2-Dichloroethene.....	2.0	N.D.	Vinyl chloride.....	2.0	N.D.
trans-1,2-Dichloroethene.....	2.0	N.D.	Xylenes (Total).....	10	N.D.
1,2-Dichloropropane.....	2.0	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)



Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-160).....	92%
Toluene-d8 (75-140).....	93%
4-Bromofluorobenzene (75-135).....	91%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 12, 1999
 Analyzed: May 17, 1999
 Reported: May 27, 1999
 Matrix: Soil

VOLATILE ORGANICS by GC/MS (EPA 8260B)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acetone.....	1000	N.D.	1,3-Dichloropropane.....	100	N.D.
Benzene.....	100	N.D.	2,2-Dichloropropane.....	100	N.D.
Bromobenzene.....	250	N.D.	1,1-Dichloropropene.....	100	N.D.
Bromochloromethane.....	250	N.D.	cis-1,3-Dichloropropene.....	100	N.D.
Bromodichloromethane.....	100	N.D.	trans-1,3-Dichloropropene...	100	N.D.
Bromoform.....	250	N.D.	Ethylbenzene.....	100	N.D.
Bromomethane.....	250	N.D.	Hexachlorobutadiene.....	250	N.D.
2-Butanone (MEK).....	500	N.D.	2-Hexanone.....	500	N.D.
n-Butylbenzene.....	250	N.D.	Iodomethane.....	100	N.D.
sec-Butylbenzene.....	250	N.D.	Isopropylbenzene.....	100	N.D.
tert-Butylbenzene.....	250	N.D.	p-Isopropyltoluene.....	100	N.D.
Carbon Disulfide.....	250	N.D.	Methylene chloride.....	500	N.D.
Carbon tetrachloride.....	250	N.D.	4-Methyl-2-pentanone (MIBK).....	500	N.D.
Chlorobenzene.....	100	N.D.	Methyl-tert-butyl ether (MTBE).....	250	N.D.
Chloroethane.....	250	N.D.	Naphthalene.....	250	N.D.
2-Chloroethyl vinyl ether.....	250	N.D.	n-Propylbenzene.....	100	N.D.
Chloroform.....	100	N.D.	Styrene.....	100	N.D.
Chloromethane.....	250	N.D.	1,1,1,2-Tetrachloroethane...	250	N.D.
2-Chlorotoluene.....	250	N.D.	1,1,2,2-Tetrachloroethane...	100	N.D.
4-Chlorotoluene.....	250	N.D.	Tetrachloroethene.....	100	N.D.
Dibromochloromethane.....	100	N.D.	Toluene.....	100	N.D.
1,2-Dibromo-3-chloropropane.....	250	N.D.	1,2,3-Trichlorobenzene.....	250	N.D.
1,2-Dibromoethane (EDB).....	100	N.D.	1,2,4-Trichlorobenzene.....	250	N.D.
Dibromomethane.....	100	N.D.	1,1,1-Trichloroethane.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,1,2-Trichloroethane.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Trichloroethene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Trichlorofluoromethane.....	250	N.D.
Dichlorodifluoromethane.....	250	N.D.	1,2,3-Trichloropropane.....	500	N.D.
1,1-Dichloroethane.....	100	N.D.	1,2,4-Trimethylbenzene.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.	1,3,5-Trimethylbenzene.....	100	N.D.
1,1-Dichloroethene.....	250	N.D.	Vinyl acetate.....	250	N.D.
cis-1,2-Dichloroethene.....	100	N.D.	Vinyl chloride.....	250	N.D.
trans-1,2-Dichloroethene.....	100	N.D.	Xylenes (Total).....	300	N.D.
1,2-Dichloropropane.....	100	N.D.			

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (70-125).....	87%
Toluene-d8 (50-135).....	97%
4-Bromofluorobenzene (70-130).....	90%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

ST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Miehler

Method Blank

Extracted: May 17, 1999
 Analyzed: May 19, 1999
 Reported: May 27, 1999
 Matrix: Water

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Reporting Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene.....	10	N.D.	Dimethyl phthalate.....	10	N.D.
Acenaphthylene.....	10	N.D.	4,6-Dinitro-2-methylphenol...	40	N.D.
Aniline.....	10	N.D.	2,4-Dinitrophenol.....	100	N.D.
Anthracene.....	10	N.D.	2,4-Dinitrotoluene.....	10	N.D.
Azobenzene*.....	20	N.D.	2,6-Dinitrotoluene.....	10	N.D.
Benzidine.....	100	N.D.	Di-N-octyl phthalate.....	40	N.D.
Benzoic Acid.....	100	N.D.	Fluoranthene.....	10	N.D.
Benz(a)anthracene.....	10	N.D.	Fluorene.....	10	N.D.
Benzo(b)fluoranthene.....	10	N.D.	Hexachlorobenzene.....	10	N.D.
Benzo(k)fluoranthene.....	10	N.D.	Hexachlorobutadiene.....	10	N.D.
Benzo(g,h,i)perylene.....	10	N.D.	Hexachlorocyclopentadiene.....	40	N.D.
Benzo(a)pyrene.....	10	N.D.	Hexachloroethane.....	10	N.D.
Benzyl alcohol.....	20	N.D.	Indeno(1,2,3-cd)pyrene.....	20	N.D.
Bis(2-chloroethoxy)methane.....	10	N.D.	Isophorone.....	10	N.D.
Bis(2-chloroethyl)ether.....	10	N.D.	2-Methylnaphthalene.....	10	N.D.
Bis(2-chloroisopropyl)ether.....	10	N.D.	2-Methylphenol.....	10	N.D.
Bis(2-ethylhexyl)phthalate.....	100	N.D.	4-Methylphenol.....	10	N.D.
4-Bromophenyl phenyl ether.....	10	N.D.	Naphthalene.....	10	N.D.
Butyl benzyl phthalate.....	20	N.D.	2-Nitroaniline.....	20	N.D.
4-Chloroaniline.....	10	N.D.	3-Nitroaniline.....	20	N.D.
2-Chloronaphthalene.....	10	N.D.	4-Nitroaniline.....	100	N.D.
4-Chloro-3-methylphenol.....	20	N.D.	Nitrobenzene.....	40	N.D.
2-Chlorophenol.....	10	N.D.	2-Nitrophenol.....	10	N.D.
4-Chlorophenyl phenyl ether.....	10	N.D.	4-Nitrophenol.....	100	N.D.
Chrysene.....	10	N.D.	N-Nitrosodiphenylamine.....	10	N.D.
Dibenz(a,h)anthracene.....	20	N.D.	N-Nitroso-di-N-propylamine.....	10	N.D.
Dibenzofuran.....	10	N.D.	Pentachlorophenol.....	40	N.D.
Di-N-butyl phthalate.....	20	N.D.	Phenanthrene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.	Phenol.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.	Pyrene.....	10	N.D.
1,2-Dichlorobenzene.....	10	N.D.	1,2,4-Trichlorobenzene.....	10	N.D.
3,3-Dichlorobenzidine.....	40	N.D.	2,4,5-Trichlorophenol.....	20	N.D.
2,4-Dichlorophenol.....	10	N.D.	2,4,6-Trichlorophenol.....	20	N.D.
Diethyl phthalate.....	10	N.D.			
2,4-Dimethylphenol.....	20	N.D.			

*Azobenzene is a breakdown product of 1,2-Diphenylhydrazine
 Analytes reported as N.D. were not present at or above the reporting limit.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
 DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (40-110).....	73%
Phenol-d6 (40-115).....	76%
2,4,6-Tribromophenol (40-140).....	84%
Nitrobenzene-d5 (35-120).....	73%
2-Fluorobiphenyl (30-150).....	83%
Terphenyl-d14 (45-150).....	97%

Robyn Rice
 Project Manager

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A. Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 18, 1999
 Analyzed: May 19, 1999
 Reported: May 27, 1999
 Matrix: Soil

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene.....	100	N.D.	Dimethyl phthalate.....	100	N.D.
Acenaphthylene.....	100	N.D.	4,6-Dinitro-2-methylphenol.....	250	N.D.
Aniline.....	150	N.D.	2,4-Dinitrophenol.....	250	N.D.
Anthracene.....	100	N.D.	2,4-Dinitrotoluene.....	100	N.D.
Azobenzene.....	150	N.D.	2,6-Dinitrotoluene.....	100	N.D.
Benzidine.....	1,000	N.D.	Di-N-octyl phthalate.....	500	N.D.
Benzoic Acid.....	500	N.D.	Fluoranthene.....	100	N.D.
Benz(a)anthracene.....	100	N.D.	Fluorene.....	100	N.D.
Benzo(b)fluoranthene.....	200	N.D.	Hexachlorobenzene.....	100	N.D.
Benzo(k)fluoranthene.....	200	N.D.	Hexachlorobutadiene.....	100	N.D.
Benzo(g,h,i)perylene.....	150	N.D.	Hexachlorocyclopentadiene.....	500	N.D.
Benzo(a)pyrene.....	150	N.D.	Hexachloroethane.....	200	N.D.
Benzyl alcohol.....	200	N.D.	Indeno(1,2,3-cd)pyrene.....	200	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.	Isophorone.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.	2-Methylnaphthalene.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.	2-Methylphenol.....	150	N.D.
Bis(2-ethylhexyl)phthalate.....	1,000	N.D.	4-Methylphenol.....	150	N.D.
4-Bromophenyl phenyl ether.....	150	N.D.	Naphthalene.....	150	N.D.
Butyl benzyl phthalate.....	500	N.D.	2-Nitroaniline.....	200	N.D.
4-Chloroaniline.....	100	N.D.	3-Nitroaniline.....	200	N.D.
2-Chloronaphthalene.....	100	N.D.	4-Nitroaniline.....	500	N.D.
4-Chloro-3-methylphenol.....	100	N.D.	Nitrobenzene.....	500	N.D.
2-Chlorophenol.....	250	N.D.	2-Nitrophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.	4-Nitrophenol.....	500	N.D.
Chrysene.....	100	N.D.	N-Nitrosodiphenylamine.....	200	N.D.
Dibenz(a,h)anthracene.....	100	N.D.	N-Nitroso-di-N-propylamine.....	150	N.D.
Dibenzofuran.....	100	N.D.	Pentachlorophenol.....	500	N.D.
Di-N-butyl phthalate.....	250	N.D.	Phenanthrene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.	Phenol.....	150	N.D.
1,4-Dichlorobenzene.....	100	N.D.	Pyrene.....	150	N.D.
1,2-Dichlorobenzene.....	100	N.D.	1,2,4-Trichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.	2,4,5-Trichlorophenol.....	150	N.D.
2,4-Dichlorophenol.....	100	N.D.	2,4,6-Trichlorophenol.....	150	N.D.
Diethyl phthalate.....	100	N.D.			
2,4-Dimethylphenol.....	250	N.D.			

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-110).....	83%
Phenol-d6 (35-110).....	84%
2,4,6-Tribromophenol (40-110).....	92%
Nitrobenzene-d5 (30-110).....	89%
2-Fluorobiphenyl (40-110).....	96%
Terphenyl-d14 (45-110).....	101%

Results pertain only to samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

PIE00585.QST <59 of 61>

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 13-24, 1999
 Analyzed: May 14-24, 1999
 Reported: May 27, 1999
 Matrix: Water

TOTAL RECOVERABLE METALS

Analyte	EPA Method	Reporting Limit mg/L (ppm)	Sample Result mg/L (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 200.7	0.050	N.D.	05/13/99	May 19-21, 1999
Arsenic.....	EPA 200.7	0.050	N.D.	05/13/99	May 14-21, 1999
Beryllium.....	EPA 200.7	0.0050	N.D.	05/13/99	05/14/99
Cadmium.....	EPA 200.7	0.0050	N.D.	05/13/99	May 19-21, 1999
Chromium.....	EPA 200.7	0.010	N.D.	05/13/99	May 14-19, 1999
Copper.....	EPA 200.7	0.020	N.D.	05/13/99	May 14-21, 1999
Lead.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99
Mercury.....	EPA 245.1	0.00020	N.D.	May 19-24, 1999	May 19-24, 1999
Nickel.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99
Selenium.....	EPA 200.7	0.060	N.D.	05/13/99	05/14/99
Silver.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99
Thallium.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99
Zinc.....	EPA 200.7	0.050	N.D.	05/13/99	05/14/99

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager

QST Environmental
 426 N. 44th St., Suite 110
 Phoenix, AZ 85008
 Attention: John Mieher

Method Blank

Extracted: May 12-21, 1999
 Analyzed: May 13-25, 1999
 Reported: May 27, 1999
 Matrix: Soil

TOTAL METALS

Analyte	EPA Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)	Date Extracted	Date Analyzed
Antimony.....	EPA 6010B	5.0	N.D.	May 12-21, 1999	May 13-23, 1999
Arsenic.....	EPA 6010B	5.0	N.D.	May 12-21, 1999	May 13-25, 1999
Beryllium.....	EPA 6010B	0.50	N.D.	May 12-21, 1999	May 13-25, 1999
Cadmium.....	EPA 6010B	0.50	N.D.	May 12-21, 1999	May 13-25, 1999
Chromium.....	EPA 6010B	2.0	N.D.	May 12-21, 1999	May 13-23, 1999
Copper.....	EPA 6010B	2.5	N.D.	May 12-21, 1999	May 13-23, 1999
Lead.....	EPA 6010B	2.5	N.D.	May 12-21, 1999	May 13-23, 1999
Mercury.....	EPA 7471A	0.020	N.D.	05/14/99	05/14/99
Nickel.....	EPA 6010B	2.5	N.D.	May 12-21, 1999	May 13-23, 1999
Selenium.....	EPA 6010B	10	N.D.	May 12-21, 1999	May 13-23, 1999
Silver.....	EPA 6010B	2.5	N.D.	May 12-21, 1999	May 18-23, 1999
Thallium.....	EPA 6010B	5.0	N.D.	May 12-21, 1999	May 13-23, 1999
Zinc.....	EPA 6010B	2.5	N.D.	May 12-21, 1999	May 13-23, 1999

Analytes reported as N.D. were not present at or above the reporting limit.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Robyn Rice
 Project Manager



2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

MS/MSD DATA REPORT

EPA Method: 8081
 Matrix: Water
 Instrument: GC

Date: 05/15/99
 Sample #: LCS/LCSD*
 Batch #: IE14PE1W

Analyte	R1	Sp	MS	MSD	PR1	PR2	RPD	Acceptance Limits	
	ppb	ppb	ppb	ppb	%	%	%	RPD	PR1/PR2
								%	%
DDE	0	0.5	0.391	0.409	78%	82%	4%	40	55-125
DDD	0	0.5	0.379	0.400	76%	80%	5%	20	60-130
DDT	0	0.5	0.388	0.408	78%	82%	5%	20	55-145

*LCS/LCSD performed in lieu of MS/MSD due to insufficient amount of sample provide

Definition of Terms

- R1..... Result of Sample Analysis
- Sp..... Spike Concentration added to sample
- MS..... Matrix Spike Result
- MSD..... Matrix Spike Duplicate Result
- PR1..... Percent Recovery of MS; $((MS-R1)/SP) \times 100$
- PR2..... Percent Recovery of MSD; $((MSD-R1)/SP) \times 100$
- RPD..... Relative Percent Difference; $((MS-MSD)/(MS+MSD)/2) \times 100$
- Acceptance Limits..... Statistically determined on an annual basis.

QA/QC Criteria..... All QA/QC criteria was within acceptance limits.

Del Mar Analytical (AZ0426) Note: This analysis was performed at Del Mar Analytical-Irvine (AZ0428).



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785 0043 FAX (480) 785-0851

LABORATORY CONTROL SAMPLE

EPA METHOD 8081

DATE: 5/18/99
BATCH: IE18PE1S

Analyte	St	LCS	PR
	ppb	ppb	%
DDE	20	18.4	92%
DDD	20	19.3	97%
DDT	20	19.6	98%

Definition of Terms:

- St.**..... Standard Concentration
LCS...... Laboratory Control Sample Result
PR...... Percent Recovery of LCS; $(LCS/St) \times 100$

QA/QC CRITERIA: QA/QC is within acceptance limits.

Del Mar Analytical



Del Mar Analytical

GC CALIBRATION CHECK CRITERIA

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Method: 8081A
 QC Batch: E18 #33

Associated Samples: PIE00585

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
DDD	1	118
Endosulfan Sulfate	1	119

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result. All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result. An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.

GC CALIBRATION CHECK CRITERIA

Method: 8081A
QC Batch: E18 #6

Associated Samples: PIE00585

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
D-BHC	2	81

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

GC CALIBRATION CHECK CRITERIA

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Method: 8081A
 QC Batch: E18 #20

Associated Samples: PIE00585

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
DDD	1	116
Endosulfan Sulfate	1	126
Methoxychlor	1	117
Endrin Ketone	1	123

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

GC CALIBRATION CHECK CRITERIA

Method: 8081A
 QC Batch: E15 #20

Associated Samples: PIE00585

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

Compound	Footnote	% Recovery in Calibration Check
B-BHC	2	70
D-BHC	1	130
Endosulfan Sulfate	1	117
Methoxychlor	1	117
Endrin Ketone	1	126

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result. All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result. An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

GC CALIBRATION CHECK CRITERIA

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Method: 8081A
QC Batch: E19 #19

Associated Samples: PIE00585

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
B-BHC	2	74
Endrin Ketone	1	117

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.



Del Mar Analytical

GC CALIBRATION CHECK CRITERIA

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Method: 8081A
 QC Batch: E19 #37

Associated Samples: PIE00585

Per Method 8000B of SW-846, the percent recovery of the calibration checks for GC analyses must be within $\pm 15\%$ from the true value ($\pm 20\%$ for the light gases) for each individual compound or the average % recovery of all compounds in the calibration check solution must be within $\pm 15\%$ recovery. Per Method 8000B, the end user is to be notified if the latter situation occurs.

The % recovery for the following individual compounds fell outside of the $\pm 15\%$ criteria, however the average % recovery of all compounds in the calibration check solution was within $\pm 15\%$, thus meeting the overall calibration check criteria.

<u>Compound</u>	<u>Footnote</u>	<u>% Recovery in Calibration Check</u>
B-BHC	2	79
DDD	1	118
DDT	2	81

¹ The calibration demonstrated a high bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible high bias in the result.
 All samples that were ND for this compound were unaffected and reported unqualified.

² The calibration demonstrated a low bias for this compound. Any sample with a positive result for this compound was flagged to indicate a possible low bias in the result.
 An additional check sample at the reporting limit was analyzed. All samples less than the amount found in the reporting limit check sample for this compound were unaffected and reported, unqualified, as ND.